An Address

ON

VARIX: ITS CAUSES AND TREATMENT, WITH ESPECIAL REFERENCE TO THROMBOSIS.

Delivered on Oct. 6th at the Inaugural Meeting of the Nottingham Medico-Chirurgical Society, Session 1898–99,

By WILLIAM H. BENNETT, F.R.C.S. Eng.,

SURGEON TO ST. GEORGE'S HOSPITAL; MEMBER OF THE COURT OF EXAMINERS, ROYAL COLLEGE OF SURGEONS OF ENGLAND; EXAMINER IN SURGERY IN THE UNIVERSITY OF CAMBRIDGE, ETC.

MR. PRESIDENT AND GENTLEMEN,—The difficulties which present themselves to one called upon to give an address upon an occasion like this are of necessity considerable, not the least of them being that involved in the choice of a suitable subject. It is my good fortune in the present instance to have been entirely relieved of anxiety in this respect by the kindness of your secretary, Dr. Kingdon, who has been good enough to intimate that some matters relating to varicose veins might form an acceptable topic. I am grateful for this help, not merely because it has relieved me to some extent of the responsibility of choosing a subject, but because it enables me to deal with a common and, in the minds of some, I fancy, unimportant surgical complaint, to which, if the selection of a subject had been left altogether in my hands, I fear I should have had some hesitation in asking the attention of such an audience as this. Surgery at the present time deals with so much that is great in its conception and performance that there is a danger of the minor and more common matters being somewhat neglected and, indeed, sometimes of being almost overlooked—a most unfortunate tendency, particularly from the educational standpoint. The observations which I am about to make must, I fear, be more or less of the nature of an epitome only, since the time at my disposal will not allow of more than that. I do not know that I have anything actually new to bring forward for your consideration; nevertheless, I venture to hope that the views which I shall express, since they differ to some extent perhaps from those commonly held, may be at least of sufficient interest to justify the trespass I am making upon your time. For obvious reasons I shall confine myself for the most part to varix of the lower limbs; I do not propose to weary you with statistics, but I must claim your indulgence when, in order to make my position clear, I have to refer to certain elementary details which must be familiar to all.

THE CAUSES OF VARIX.

The origin of varicose veins has until comparatively recently been generally considered to be something of a mystery; speculations as to their causation have from time to time been made, but nothing very definite with regard to the cases commonly met with has been forthcoming. In some lectures published in 1889[1] I arrived at certain deductions based upon the consideration of a large number of cases; increased experience during the past ten years has led me to form more positive conclusions than were quite justifiable at the time I have mentioned. A distinguished surgeon, lately deceased, who was himself a sufferer, in the course of a conversation not long ago went so far as to say that he did not believe that anything whatever was known about the origin of varix, and, further, that very little more was known about its proper treatment; and it must be admitted that the information obtainable from the ordinary sources is very meagre. I venture to think that a little consideration will show that the causes of the disease are not so obscure as to be, at all events in the majority of cases, insusceptible of explanation. For practical purposes, so far as their causation is concerned, varicose veins may be divided into four classes: (1) those which are congenital; (2) those due to obstruction of blood-current; (3) those caused by strain without thrombosis (traumatic); and (4) those the result of thrombosis.

1. The congenital cases form a large percentage of those usually met with and consist of two varieties: (*a*) those connected with the subcutaneous veins only, and (*b*) those having a direct and gross communication with the deep venous trunks. The second of these varieties is, for reasons presently to be mentioned, by far the more important. As an example of the first variety, the local mass of varix often seen in the calf of the leg may be mentioned, and of the second kind the convoluted collection of varicose veins about the inner side of the knee, which, turning towards the middle of the popliteal region, ends in a large vessel which joins the deep vein directly by passing through the normal opening in the fascia over the popliteal space. A third variety of congenital varix is that in which the whole venous apparatus of a limb is over developed with or without corresponding increase in size of the main artery. Such cases vary in degree from what is nothing more than a little exaggeration in the size of the vessels to a morbid condition which may, without inaccuracy, be termed diffuse nævus. Congenital varix is sometimes very extensive. A patient who occasionally comes to see me at St. George's Hospital has the most exaggerated varix of all the superficial veins of the right side of the body with which I have met, some of the vessels on the chest being of enormous size. He is now about forty years of age, very strong and entirely free, so far as our means of examination allow one to judge, from any visceral abnormality; there is a large varicocele, but there are no piles. The condition, he is certain, has existed since childhood, and he says that his father was similarly affected. The congenital cases are, as a rule, not noticed until about or after the time of puberty, when a rapid increase of the abnormality often occurs. In connexion with these congenital cases the question of the influence of heredity naturally arises. So far as I can judge heredity is a considerable factor (mainly on the father's side), although I am prepared to admit that the decision upon this point must be difficult in a complaint so common. Nevertheless, when it is possible, as is not infrequently the case, to trace the same form of varicosity through successive generations, and in several members of the same family at the same time, it is difficult to conclude otherwise than that in a large number of cases at least heredity is a strong influence.

2. Cases due to obstruction of the blood-current by external or internal pressure. The most familiar examples of this type are afforded by the varix resulting from pressure of the gravid uterus in successive pregnancies in some women and by the varicosity produced in the veins at a lower level by the pressure of tumours above. In such cases, if the pressure is sufficiently transient and not too complete, the whole of the dilatation may subside permanently upon the removal of the pressure; if, however, the tension in the veins is enough to cause the valves to give way, or if, as may happen, aseptic thrombus forms immediately below the seat of pressure, permanent varicosity results. The gradual increase in varix which occurs after successive pregnancies is, I believe, to be explained upon one of these hypotheses, the occurrence of aseptic thrombus being, in my judgment, more common than is generally thought.

3. Cases caused by strain. There is, I believe, no doubt that, *cæteris paribus*, the veins of persons who when young are subjected to abnormal, and especially sudden, strain, such as may occur in hard "training," in gymnastics, particularly the lifting of heavy weights, or in any violent exercise, as, for example, heavy football playing, tend to become varicose more than the veins of persons whose occupations or amusements throw less strain upon the vascular apparatus. The greater the strain in proportion to the strength of the individual the greater will be the tendency to the development of varicosity. The most exaggerated varicosity arising in this way that I have seen was in an enthusiastic football player in whose ancestors there were no traces whatever of a similar condition; in his case no sign of the defect showed itself until a distinct feeling of something having "given way" in the thigh had occurred on two or three different occasions, after which first mere enlargement and then tortuosity of the long saphena and its tributaries followed. After careful observation I have formed the opinion that the immediate cause of the development of varicosity in cases of this kind is the giving way of the vein valves, usually the proximal pair, which under condition of great general tension naturally have to bear the greatest pressure, although they are not unfrequently imperfect

[1] Clinical Lecture on Varicose Veins.

anatomically. To produce proof of this contention is necessarily difficult, but the evidence of a case like the following is undeniable.

A young man, aged eighteen years, of strong physique and in perfect health, whilst doing some heavy gymnastic work felt something "give way" in the upper part of the right thigh. No discomfort worth mentioning followed, but as he felt some weakness about the part he consulted me three weeks afterwards. Upon examination the saphena from the groin to a point just above the knee was at least twice the size of the vein below that point, which was apparently normal; the enlargement above ceased abruptly at the point named. The veins in the opposite limb were normal. There could be no doubt that the proximal saphenal valves had become incompetent by reason of the strain and that the vessel had become enlarged in consequence down to the next competent valves. Circumstances, apparently unavoidable, made it necessary for the violent exercise to be continued, and a second strain was distinctly felt a fortnight after I saw the patient. A month after the second strain the whole saphena from the groin to the ankle was very large, later it became tortuous, assuming all the characters of ordinary varix.

I have seen other cases of the same kind. In one of these I removed a considerable length of the saphena, which was as large as my index finger; the valves, of which there were three pairs in the portion removed, were incompetent and one flap had been apparently torn almost off the vein wall, so that it must have been floating nearly free in the blood stream. In connexion with this last remark it is noteworthy that in some cases of varix arising in this way from sudden strain *a soft bruit* is perceptible upon auscultation, although no pressure of any kind is made upon the vein; indeed, it may be possible to hear the bruit by placing the stethoscope on a limb a short distance from the affected vessel. Included in the category of varix arising from strain are those cases of varicose veins in the lower limbs occurring in persons whose occupations entail long-continued standing without much variation in position—girls and young men serving in shops, for example. In these cases the strain is, of course, very slight, but it is so continuously applied by the long column of blood in the saphena that the ultimate effect is to produce varicocity of various degrees in different subjects. There is, however, sufficient reasons for believing that varix of this kind occurs only in subjects whose veins are in some way defective, congenitally, from previous traumatism, or from pathological change.

Some years ago I had an opportunity of ascertaining the condition in relation to varix of the lower limbs in a number of persons selected at random who were employed in a large business house. 15 per cent. were grossly affected and of these nearly half were very robust; on the other hand, amongst those free from the defect were some of the most anæmic and delicate looking of the number examined. Bearing in mind that the occupation of all these subjects was identical and that the defect was not confined to the weak but occurred with apparent indifference in the strong and weakly, it must, I submit, be conceded that there is here strong presumptive evidence in cases of this kind that the origin of the disease lies in some inherent defect in the veins themselves. The fact that the condition when once started tends to become more exaggerated in weakly subjects in no sense affects the validity of this contention.

4. Thrombosis as a cause of varix. The effect of thrombosis of the large venous trunks, such, for example, as the iliac vein or inferior vena cava, especially as a complication of enteric fever, in the production of general varicosity of the limb below is too familiar to call for comment. The importance, however, of thrombosis as a factor in the causation of a certain type of varicosity in the leg is not, I venture to think, commonly recognised, nor am I aware of any mention of the matter in surgical literature. Strains and other similar injuries of the leg or ankle followed by pain and acute tenderness down the middle of the calf, sometimes insufficient to cause more than momentary or very transient trouble, but at times enough to render the limb practically useless for a considerable period, are not infrequently followed very soon by dilatation of the saphena veins, which, if more than very temporary, passes subsequently onwards to tortuosity, with the development of characteristic varix which rarely extends above the knee, terminating generally at the point at which the great saphena of the thigh is completed by the junction of the two trunks at the upper end of the leg. The cause of this development is thrombosis of the main deep veins—i.e., the venæ comites of the posterior tibial artery, &c. The primary saphenal dilatation is merely the result of the establishment of the collateral circulation. If the thrombus clears up or if the unaffected deep veins take up the collateral function this dilatation is temporary only and soon disappears; if, on the other hand, as not infrequently happens, the thrombus leads to occlusion of the deep channels, the superficial dilatation remains permanently and sooner or later a state of ordinary acquired varicosity of the leg follows, which extends, as a rule, no higher than the junction of the two branches already mentioned, which complete the formation of the femoral saphena, as at this point the blood current becomes so free that no appreciable change is produced higher up. The clinical importance of these cases is considerable and lies rather in the history of the cases than in the local symptoms. A proper appreciation of the condition is essential in relation to treatment, as I shall presently show.

A characteristic case of this kind is the following. A man, aged thirty-six years, whilst walking slipped off the kerb and "sprained his ankle"; he paid no attention to the injury at the time. On the following morning on attempting to leave his bed he felt so much pain in the calf of the leg that he could not do so. I saw him a day later—i.e., about 48 hours after the accident; he was then suffering acute pain on the least movement in the middle of the calf; there was tenderness as well as other unmistakeable symptoms of deep thrombosis. Just behind and below the internal malleolus there was slight puffiness; over this area some bruising appeared a few days later. In three weeks he was well enough to get about, but the superficial veins of the leg were full and considerably larger than those on the opposite side. I saw nothing more of the patient for two years, when he again came to see me giving the following account of himself. Although he had apparently recovered from the injury and could do practically anything he desired in the way of exercise he had experienced at times after a heavy day's work a feeling of fatigue in the affected leg, and a year before seeing me he observed that the veins about the leg were much swollen. By degrees this swelling increased until it became so marked that he felt bound to seek advice. Upon examination I found well-marked varicose veins of the leg of the kind I have mentioned and about the inner ankle was a pad of small dilated vessels. The whole leg was slightly larger than its fellow, but there was no tenderness, œdema, or other unnatural manifestation. The thigh was precisely as that of the opposite side.

In the course of some investigations as to the condition of the deep veins on the cadaver in persons who showed obvious signs of varicose veins in the leg I found in two cases the venæ comites of the posterior tibial artery completely occluded by organised thrombus. At the time (now some ten years ago) I attached no importance to the condition, but in the light of subsequent clinical experience it is of distinct significance in relation to the point I am discussing.

THROMBOSIS IN VARIX.

It is commonly stated that varicose veins of the lower limbs are not in any way dangerous to life although they may be productive of discomforts and complications sufficiently serious to incapacitate a patient from following any active employment. Speaking generally this statement is without doubt true, but there are exceptions to it of enough importance to make the matter worthy of some consideration. There are certain well-defined types of varicosity which certainly afford an ever-present source of danger which, if the condition be recognised, is easily obviated by the removal by operation of the veins concerned. That the existence of this danger is not recognised by some practitioners is abundantly clear from the obstacles which even now are often thrown in the way of operations which, being practically devoid of risk, are suggested as a preventive measure before local changes have occurred which rapidly tend to disastrous results. In the course of a comparatively short time I have seen 1 case in which life was sacrificed and 7 others in which it was placed in jeopardy by the failure to recognise the importance of certain conditions to which I shall presently refer. For practical purposes the only immediate dangers to life arising from varicose veins are: (1) the occurrence of profuse bleeding from the "bursting" of a thinned vein; and (2) the formation of thrombus which may either rapidly extend to the great venous channels or lead to the detachment

of emboli, which if large enough may cause immediate death, or if they pass through the heart lodge in the lungs, giving rise to pulmonary lesions which are sometimes fatal.

It is, I believe I am right in saying, a rather common belief—which is in a general way justifiable—that thrombosis of a vein which is varicose is of less importance than of a vein which is normal, since extension of the clot or its disturbance in the former condition is less likely to happen. Indeed, it is a common experience to find patients allowed to get about and follow their ordinary vocations with comparatively recent clots in varicose veins of the leg, which if they existed in veins which were not varicose would inevitably lead to the prescription of long-continued complete rest. There is no doubt that so far as the limb below the knee is concerned, in the absence of very gross neglect, results serious to life rarely follow immediately from thrombus in varix. In the thigh and at the knee, however, the matter is altogether different since a recent clot in varicose veins in those regions is always a serious and sometimes a fatal lesion; in certain types of varix the gravity of thrombus cannot be over-estimated. The local conditions predisposing to thrombosis in varix are—(*a*) cysts or acute bends in greatly dilated vessels; (*b*) peculiarity of situation with regard to mobility; and (*c*) liability to injury. Now traumatic thrombus in varix almost invariably begins either in cysts, cystic dilatations, or in the acute bends of very tortuous and greatly dilated vessels. In situations in which the affected veins, especially if very large, are continually subject to mobility—e.g., alternate bending and straightening—thrombus is prone to form. The effect of traumatism as a cause of thrombosis is too familiar to require comment. The tendency of thrombosis in varix to spread and invade the great deep venous channels increases with the size of the vein, the absence or inadequacy of the vein valves, and especially with the existence of a gross lateral communication between the part in which the clotting occurs and the main deep venous channel nearest in relation to it. The liability to embolism will of necessity be increased by the same conditions; upon these conditions, therefore, may be said to depend the gravity of thrombosis in varix. Of the constitutional states predisposing to thrombosis it is unnecessary to speak; they act in the same way, but with more force, in varix as they do under normal local conditions.

THE DANGEROUS REGION IN VARIX.

If a portion of the inner half of the circumference of the lower limb be marked off by two transverse lines one about the middle of the thigh and another three inches below the line of the knee-joint—i.e., at the point where the two main subcutaneous veins of the inner side of the leg join to form the main femoral trunk of the internal saphena—an area will be included in which the local conditions predisposing to thrombosis in varix are present in a remarkable degree; indeed, for practical purposes they may be said to be limited to that area. Cysts, often of great size, are there common; huge dilated tortuous vessels, valveless and with abrupt bends, are frequent, and are constantly being subjected to the straining movements produced by flexion and extension at the knee. The special liability to injury of the affected vessels about the inner side of the thigh and knee in riding and numberless other amusements and occupations is obvious. So far as my experience goes all cases of thrombosis in varix of a grave nature, apart of course from those dependent upon acute inflammation or other septic conditions about the limb, with hardly any exceptions originate within the limits of the area described. I have therefore been in the habit of designating it the "dangerous region of varix," employing the term "dangerous" to imply risk either to life or to the integrity of the limb. In order that the importance of the dangerous region may be fully understood it is necessary to briefly indicate the several varieties of varix which are found within its limits. Excluding slight tortuosities of unimportant venous radicles there are eight distinct varieties of varix met with in this region; all are either connected with or actually involve the long saphena.

1. An extensive arrangement of tortuous and dilated veins, containing many small cystic dilatations, which commences at the outer side of the knee and running upwards and inwards just above the patella, joins the saphena a little below the middle of the thigh. This varix is often joined at its commencement, where there is also sometimes a deep branch connecting it with the deep veins, by an afferent tortuous vessel proceeding across the front of the leg or knee from the saphena below or opposite the latter point.

2. A large mass of varix above and to the inner side of the knee, sometimes extending down into the upper part of the leg; the mass is quite superficial, attached above to the saphena, upon which it lies and conceals. It has running into its lower end large superficial varicose veins, beneath which the saphena of about the normal size can usually be seen to run.

3. Two, three, or more distinct venous cysts, varying in size from that of a horsebean to a large cherry, connected to one another by intervening tortuous and dilated veins. This arrangement generally extends from a little below the middle of the thigh and reaches to the level of or below the line of the knee-joint; it is quite superficial, overlying the saphena, to which it is attached above; below it receives varicose veins from the leg.

4. A mass of varicose veins turning round the inner side of the knee connected with the saphena either above or below and ending nearly always by direct communication over the middle of the popliteal space, either with the popliteal vein itself or with the short saphena immediately before it joins the deep vessel.

In these four types the saphena, although it may in exceptional cases be large and tortuous, is, as a rule, normal.

5. A similar condition to that described in Variety 1, but as a rule smaller. It terminates above in a considerable cystic dilatation of the saphena just below the middle of the thigh and receives below varicose veins from the leg. The saphena itself, large and sometimes tortuous, runs beneath the superficial varicose mass and often presents a second cystic dilatation just below the knee. The valves of the saphena are inadequate and there is sometimes a varix at the saphenous opening.

6. The saphena is very large throughout, its diameter being sometimes three-quarters of an inch. From the middle of the thigh to below the knee it is extremely tortuous, the bends of the tortuosities being often very abrupt. The valves are practically non-existent and a varix at the saphenous opening is common.

7. A single large cyst of the saphena situated immediately below the middle of the thigh or just above the knee, of a size varying from a cherry to that of a pigeon's egg. The saphena itself is moderately dilated throughout and may be slightly tortuous at the inner side of the knee. As a rule, however, the cyst is the only abnormality *visible* in the thigh, although in the leg the radicles of the saphena are varicose, sometimes to an extreme degree. The saphenal valves are entirely inadequate and when the cyst is situated low down it not uncommonly communicates with the femoral or popliteal trunk by means of an ascending or descending branch of large size.

8. Two large cysts of the saphena, one situated below the middle of the thigh, the other opposite the knee. The saphena is much dilated and between the cysts is tortuous, standing out prominently. The lower of the two cysts often communicates with the femoral or popliteal trunk. There is almost always a varix at the saphenous opening and the saphenal valves are virtually wanting. The veins of the leg are varicose generally to a considerable degree.

It will thus be seen that these eight variations embrace three distinct classes of venous abnormality—one in which the varix is local and limited, the saphena being for practical purposes natural; a second in which the saphena is largely if not solely affected, its valves being wanting or inefficient; and a third class, in some respects the most important, in which direct lateral communication exists between some portion of the abnormal veins and the nearest deep venous channel—i.e., the femoral or popliteal vein as the case may be.

I have already explained the reasons for the proneness to thrombosis which each of the varieties of abnormality mentioned undoubtedly shows. In the cases in which the saphena is normal and no other gross communication with the deep veins exists the varicose mass is so isolated that there are, if ordinary care be observed in treatment, no serious grounds for fearing that extension of clot to the great vessels will take place. In the cases, however, where the saphena is seriously involved, its valves being virtually non-existent, and in the cases associated with a direct lateral communication between the varix and the nearest deep trunk, the rapidity with which thrombus invades the deep channels is remarkable and sometimes appalling. I may perhaps venture to

say here, in parenthesis, that the extension of a thrombus in a vein is not checked only by the nearest collateral branch, as would be inferred from the teaching of the books, but also by the vein-valves provided that they are perfect—a fact which, although I believe it is not commonly recognised can be easily verified by any intelligent person who will watch the progress of a thrombus creeping along the length of a normal saphena vein. The rapidity with which a greatly enlarged valveless saphena will fill with clot from the knee to the groin is very extraordinary. The existence of a distinct sacculation of a vein, although primarily conducive to clotting, is up to a certain point antagonistic to the spreading of the clot, since this tends at first to confine itself to the sacculation, but the usual methods of treatment are not such as to take advantage of this help, and the thrombus therefore frequently extends into the vein and grows up its channel in the ordinary manner. A characteristic example of cyst thrombus, showing the disastrous results which may follow inadequate treatment, is afforded by the following case.

A woman, aged thirty years, a cook, unmarried, was sent to me at St. George's Hospital on account of varix of the lower limb. Upon examination there was found to be a large saphenal sacculation a little below the middle of the thigh, the saphena itself being very large throughout. I advised removal of the cyst and adjacent portions of the saphena in consequence of the risk of thrombosis entailed by her occupation. Her own disinclination and the advice of others led to the operation being declined. Three months later she was admitted with thrombosis entirely limited to the cyst, the saphena being quite soft and free from clot. Feeling certain that sooner or later the clot would invade the saphena and travel to the deep main vein I urged either the removal of the cyst with its contained clot or ligature of the healthy saphena above to prevent the upward progress of the thrombus. Again the operation was declined. Treatment by the usual methods was therefore carefully carried out. On the fourth day after admission the saphena became almost suddenly filled with clot from the cyst to the groin and blocking of the femoral and iliac veins followed immediately. She subsequently died from septic pneumonia the result of three successive embolic infarcts.

I presume there can be no reason for doubting that if I had been allowed to operate whilst the thrombus was confined to the cyst the life of this patient would have been saved. Although this may possibly be regarded as an extreme case it is not the only one of the kind which I have known to end fatally. Of similar cases in which permanent crippling of the limb has resulted from the invasion of the deep veins by thrombus in consequence of the importance of energetic treatment not being realised I could give many examples. Of the gravity of the lateral communication between the varix and the nearest deep venous channel I have had considerable clinical experience; the following is a good illustration.

A healthy young woman consulted me with reference to varicose veins behind the knee. She was an energetic horsewoman and she was induced to seek advice because at the end of a day's hunting the mass of veins became full and sensitive in consequence of the pressure of the pommel of the saddle. Upon examination there was well-marked varix of the kind indicated in Type 4; it occupied the inner side of the popliteal space and obviously dipped down as a large branch to end in the popliteal vein or the extreme end of the short saphena. I strongly urged removal of the varix, because I felt sure that unless riding was given up thrombus of the varix would occur some day, a crippled limb and possibly risk to life probably following in consequence of the invasion of the popliteal and femoral veins by the clot. Operation being at the time inconvenient to the patient it was postponed to a future date. About three months later thrombus of the varix occurred in the way I had anticipated, the femoral vein becoming very quickly involved; the saphena remained quite healthy and free from clot. The patient progressed in the ordinary way with rest, but the limb has never recovered its normal condition. It is larger than its fellow and becomes œdematous towards the latter end of the day; the saphena has become dilated and tortuous.

It is quite clear that the extension to the deep veins in this case took place through the immediate communication with those vessels and not through the saphena; it is, I think, equally certain that had the treatment I recommended been carried out the crippling of the limb would have been avoided. This particular type of varix may be regarded as especially important in horsewomen. I have no knowledge of any fatal case but I could quote other instances in which permanent crippling has occurred in the manner described. The crampy pains not uncommonly associated with varix of the legs, especially in persons of middle age, are, I believe, due to thrombus of the intramuscular veins. I called attention to this point in a lecture published in January last.[2] These crampy pains are acute and transient, but they often leave a sense of stiffness about the part, over which there is usually slight tenderness occasionally followed by local spots of discolouration; they are therefore easily distinguished from ordinary cramp. The occurrence of these pains is a sure indication of coming increase in the varicosity and has a definite bearing upon treatment.

THE SPONTANEOUS DISAPPEARANCE OF VARIX.

At present I have spoken of thrombosis in varix as a harmful factor only, which as a rule it undoubtedly is, the degree of mischief occasioned by it varying from temporary inconvenience to a fatal lesion. Sometimes, however, a thrombus exercises a beneficial influence which is deserving of recognition since it leads at times to what may in a sense be termed spontaneous cure. For the attainment of this desirable end organisation of the thrombus with complete occlusion of a considerable length of the affected vessel is essential. Few things are more remarkable than the changes which constantly take place in the varicose veins in the legs of old people in whom passive thrombus is of frequent occurrence and generally gives rise to so little discomfort when confined to unimportant vessels that it barely attracts notice. A careful examination of varicose veins in old people will often reveal the existence of innumerable obliterated venous areas with or without phleboliths which are the outcome of thrombosis. In a subject of any age the effect upon a varicose limb below the knee of a thrombus of the saphena which ends in organisation and occlusion of the vessel is remarkable, being in fact the same up to a certain point as that which follows the removal of a portion of the saphena by operation. Unfortunately in varix of the saphena organisation of thrombus is the rare exception, softening being the rule. The most complete example of spontaneous cure of varix by thrombus is seen in varicocele, in which occasionally a cure as perfect as can be effected by the most radical operation will follow thrombosis which is commonly traumatic in origin but may in gouty subjects be spontaneous. Extensive thrombosis in varicocele is more common than is generally supposed; sometimes the condition is, I fancy, not recognised when it does occur. I have myself seen a case in which a diagnosis of gouty orchitis had been made in consequence of some effusion in the tunica vaginalis which is prone to occur in thrombosis of the spermatic plexus of veins. The most striking case of spontaneous cure of varix following upon thrombosis with which I have met is the following.

A man, aged twenty-seven years, came to St. George's Hospital for advice concerning a varicocele which had begun to give discomfort after he had been lifting heavy weights. There was a large varicocele which I caused to be photographed, as it illustrated a point in which I was interested; it was arranged that the patient should be admitted into the hospital for operation at a later date. Three weeks after I saw him he returned, his varicocele having been struck by a heavy box which slipped as he was lifting it. The left side of the scrotum was bruised and a small, sausage-shaped, slightly tender and somewhat boggy swelling, extending from the groin to the testicle, occupied the place of the varicocele; the testicle was unaffected but there was a little fluid in the tunica vaginalis. He was prevented for reasons which were to him sufficient from coming into the hospital for treatment and I saw nothing more of the man until a year later, when he came for advice because he thought his left testicle was dwindling away. Upon examination the testicle was certainly smaller and softer than that on the opposite side, although at first sight it seemed of the same size as there was some slight effusion into the tunica vaginalis. The varicocele had entirely disappeared; just above the testicle was an elongated hard mass of the size and shape of a date-stone. There was neither pain, tenderness, nor discomfort of any kind. He stated that the swelling resulting from the

[2] Clinical Journal, Jan. 19th, 1898

injury had gradually disappeared after he had laid up for a fortnight and that since its disappearance he had suffered no inconvenience whatever although he had been doing his ordinary heavy work.

I have memoranda of 5 other cases (one in a medical man) of spontaneous cure of varicocele following upon thrombosis, in 3 the result of traumatism, and in the remaining 2 apparently spontaneous in gouty subjects. In the case described above there was certainly some testicular wasting in the true sense, and in one of the gouty cases the testicle atrophied to an extreme degree, nothing remaining beyond a small insensitive nodule. I have no knowledge of any mention elsewhere of the spontaneous cure of varix in this way. It is sometimes stated that varicocele disappears in old age, and I have been assured that this is the case by a surgeon of great experience who tells me he has never seen a varicocele in an old man. This is entirely opposed to my own experience, for I have seen varicoceles in old people not very rarely; an old gentleman, for example, of whom I had seen a great deal for many years, who recently died at a great age, had a very large varicocele for which he wore a support to the day of his death. At the same time it must be admitted that varicocele does at times undergo changes which tend to great diminution in size upon the decadence of testicular function, but I am strongly inclined to the belief that the changes which lead to complete disappearance of varicocele in old age are due to passive thrombosis of the spermatic veins, a view which receives some support from the frequency with which phleboliths and local occlusions are found in the veins of the spermatic cord in persons advanced in years.

THE TREATMENT OF VARIX.

The remarks I have to make upon the ordinary palliative treatment of varix are, I fear, rather elementary but they will not detain you long. In the early stage of the complaint, especially if there be a tendency to œdema, the results of massage properly applied are beneficial often to a remarkable degree; in its employment some discrimination is requisite. It is to be avoided in cases in which obvious cystic dilatations are present, and when any indications of recent thrombosis are manifest it is therefore, for example, inapplicable during the occurrence of the crampy pains to which I have referred. Moderate exercise in the absence of recent thrombosis is in all cases good; excessive exercise or overstrain is necessarily bad; worst of all is standing for a long time in the same position. In all cases rest in the recumbent position with the legs raised for an hour or so in the afternoon of each day is advantageous if practicable. Electricity in addition to massage is said by some to effect great results; personally I have seen no permanent good in excess of that obtainable by massage alone come of the combined method.

There is probably hardly anything which produces so much harm in varix as the routine use of elastic support, whether this takes the form of stockings or of bandages. I believe I am right in saying that 25 per cent. of the cases of varix in which real trouble arises are due to the use of elastic and other supports which are either unneccessary or ill-fitting. In individuals following ordinary occupations varix which causes no trouble and shows no tendency to increase should be left alone unless for reasons presently to be mentioned operation is indicated. At first sight it may appear that an elastic support, if it is not actually necessary, can at all events do no harm. Nothing, however, is farther from the fact than this assumption. That varix is often discovered quite accidentally is a matter of common knowledge and the discovery, unless ignored altogether by the subject, is generally followed by the wearing of an elastic support of some kind, often with the worst result possible.

It is not uncommon in my experience to find people who have been the subject of varicose veins in the lower limbs for years which have never given trouble of any kind begin to complain of discomfort and perhaps increase in the condition not long after having taken to the use of elastic stockings recommended casually by some friend. These stockings are frequently obtained after a rough-and-ready measurement from a druggist, coöperative stores, or wholesale house, where they are kept in "stock" sizes; hence they rarely if ever fit and the almost inevitable result of the wearing of an ill-fitting stocking in varix is an increase in the disease or the occurrence of some undesirable complication. It is essential if an elastic stocking be used that it should fit perfectly, and it is, so far as I can judge, one of the most difficult of appliances to obtain perfect. In varix confined to the leg the harm done by ill-fitting supports or badly-applied bandages is less than in varix affecting the thigh. I have seen 4 cases of grave thrombosis in the thigh undoubtedly caused directly by ill-fitting appliances. I therefore never allow a patient suffering from uncomplicated varix of the thigh to use any support above the knee, not only because serious complications are sometimes so caused, but because all the comfort obtainable in uncomplicated varix of the lower limb can be afforded by a properly arranged support which does not extend beyond the upper limit of the leg. In certain cases of œdema of the whole lower limb elastic support throughout may be indicated; in such circumstances the thigh piece of the support should invariably be made distinct from that of the leg, the two parts should never be continuous.

In passing I must here mention that there is a well-marked type of varix met with in a considerable percentage of the cases coming under observation in which the vessels are abnormal only inasmuch as they are large and somewhat tortuous, the valves being natural and the functional properties perfect. This is especially the condition found in the varix of the lower limbs which is often accidentally discovered either soon after puberty or at about the age of twenty or twenty-one years. In some of these cases the main artery of the limb is abnormally large. It is, in the absence of symptoms pointing to its desirability, as unreasonable in a case of this sort to use an artificial support as it would be to do so in a normal limb. Varix of the leg arising from deep thrombosis after injury in the manner already indicated requires gentle elastic support from the beginning with intelligent massage as soon as any tenderness has disappeared; by these means a cure in the true sense can often be effected, the use of the elastic support being generally necessary for about twelve months, after which it may be discontinued. The operative treatment of varix has now been freely practised sufficiently long to enable a proper estimate of its value to be made. It is a treatment with very distinct limitations in its scope and application, more discrimination being required in its successful employment than is, I venture to think, commonly supposed.

There are few treatments which, speaking generally, are liable to cause more disappointments to the patients than operations upon varicose veins, but with reasonable care these disappointments can be avoided, since when occurring they are inevitably due either to exaggeration on the part of the surgeon in the estimate of the benefits obtainable by the treatment, to want of judgment in the selection of cases, to the performance of unsuitable operations, or to the wrongful attribution of symptoms to varix which are in reality dependent upon some other condition. With regard to the first of these reasons it must at once be admitted that excepting certain cases of isolated cysts and local congenital masses of varix anything like a cure in the sense in which patients usually understand the term is impossible. In general varix the utmost which can be achieved by operation may be summed up in the relief of certain discomforts, a partial diminution in the objective defect or arrest of its progress if it be increasing, the prevention of subsequent inconvenient complications, and the removal in some instances of conditions which may prove dangerous to the integrity of the limb or possibly to life—prospects assuredly sufficient to justify the operative treatment when properly applied, but not of a kind to justify the use of the word "cure."

In discussing the question of operation with patients two points in particular cannot be too prominently borne in mind; the first being that if the disease has involved the saphena in the thigh the operation will not necessarily enable the use of an elastic support to be entirely dispensed with; the second is that in a case of long existing varix which has given rise to inconvenience an operation, although it will if the case is suitable effect improvement and give great relief, does not necessarily place the patient in the condition of a sound person. If these points be insisted upon much disappointment will be avoided, for there is no doubt that at the present time the tendency of the public is to expect very much more perfect results from surgical operations generally than can in the great majority of instances be effected by them. Operation in uncomplicated varix is to be regarded as a measure for the prevention of certain complications and as a check to the progress of the disease and not in any sense as a cure, excepting in the local conditions which I have indicated.

From the point of view of operation varix of the lower limbs may be divided roughly into two classes—one in which the defect is local with well-defined limits, the other in which the disease is more or less general, the long saphena being considerably implicated. There is no doubt whatever that local masses of varix, which are always congenital, occurring in persons of active habits should be removed, especially if situated in positions liable to injury or if there is any evidence of a direct communication with the deep main venous channels, in consequence of the danger connected with thrombosis under those circumstances; isolated cysts or dilatations, with the exception of those occurring in insignificant venous radicles, should be removed for the same reason. Cases in the second class, again, come under two denominations—one in which the disease is confined to the leg, the other in which it affects the thigh, the saphena being grossly involved. Speaking generally, if the disease is confined to the leg operation is useless; sometimes it is harmful. All the benefit obtainable from treatment of general varix of the leg can be obtained by properly applied elastic support which would still be necessary in the vast majority of cases if an operation were performed. In cases, however, which are not very unfrequently met with, in which in general varix there exists either a cystic dilatation of the long or short saphena about the middle of the leg operation in active subjects is certainly indicated. The condition, however, in this class of case which most urgently calls for removal is a very tortuous and dilated thin-walled vessel passing obliquely across the shin, which is especially dangerous in footballers and other persons liable to injury in the locality concerned. I have known this particular vessel to be the starting-point of serious thrombosis in three cases, and extensive subcutaneous hæmorrhage resulting from its laceration or rupture from traumatism is in my experience not very rare.

When the saphena in the thigh is involved, there being at the same time, as is practically always the case, extensive varix of the leg, the results of operation are most striking. The conditions mentioned as occurring in the "dangerous region" can be entirely removed, all risks to the integrity of the limb or to life being thus obviated. It is, moreover, perfectly clear from my experience that the discomforts felt in the leg in general varix and the tendency of the disease to increase depend almost entirely upon the pressure of the long column of blood in the valveless saphena. In practice it will be found that if this column be sufficiently interrupted the discomforts felt below are in all cases greatly modified and in the majority entirely removed, the tendency to increase in the varicosity is as a rule checked and in many cases very considerable shrinking of the varicose vessels above and below follows. In the selection of a plan of operation the point to which I have just alluded becomes of paramount importance, for although I know that there is room for difference of opinion in the matter I have proved in my own practice and have sufficiently corroborated the results of my own experience by what I have seen occurring in cases operated upon by others, that operative measures confined to the parts below the knee in general varix are useless. I have therefore long since abandoned them. My practice is to remove a length of the saphena extending from the point below the knee at which the two venous trunks from the leg join to a point a little above the lowest third of the thigh. In no case, so far as I can recollect, has there been reason to be disappointed with the result, although in many cases the amount of varix in the leg has been enormously in excess of that in the saphena above. On the other hand, I have seen instances in which thirty or more small pieces of vein have been removed from the leg in cases of this kind without any benefit whatever resulting until the saphena in the thigh has been dealt with. Indeed, in two cases which have come under my observation after having been operated upon in this way the subsequent state has been far worse than the condition before the treatment. The operation which I recommend occupies a comparatively short time in its performance, the wound is in a part which heals quickly, and the difficulty sometimes met with in keeping a large number of small wounds aseptic does not, of course, arise. I have a vivid recollection of a varicose limb in which not less than fifty short pieces of vein had been excised, the operation, it was stated, having occupied two hours; the limb when I saw it three months after the operation was œdematous, some of the scars were hypersensitive and irritable, whilst between some of them were thrombosed veins; the thrombi, it is true, were comparatively harmless as they were quite isolated, but they were distinctly antagonistic to rapid progress.

It is, I presume, needless to say that operation in varix the result of thrombosis so long as the dilated veins are concerned in carrying on the collateral circulation is unjustifiable—hence no operation should be performed in such cases if there is œdema or if the limb is manifestly increased in size generally. If, however, in cases of varix due to thrombosis there is no sign of œdema and the limb is not appreciably larger than that on the opposite side, they may be dealt with as ordinary cases of uncomplicated varix.

In those who are the subjects of extensive varicosity of the lower limb, whose occupation or amusements are such as to throw great or sudden strain upon the abnormal vessels, resection of a portion of the saphena in the manner which I have mentioned is strongly indicated if any feeling of tension in the vessels is perceptible to the person concerned during great exertion, although at other times no trouble or discomfort of any kind may be experienced. Failing operation in such cases, an elastic support extending only to the upper end of the leg should be worn during the continuance of the conditions leading to the liability to strain.

At first sight it would seem almost impossible to attribute to varix symptoms caused by some other condition, but in practice this is not altogether difficult. I have myself, somewhat against my will it is true, operated upon a case in which symptoms ascribed to varix were undoubtedly in no way connected with it. The case has already been recorded, but it affords such an excellent clinical illustration that I repeat its salient points. The patient was a man engaged in an active occupation, to whom, therefore, the ability to take a large amount of exercise was a necessity. He consulted me on account of general varix of both lower limbs and he described symptoms which might with reason have been thought due to the condition of the veins. His principal complaint was a feeling of fatigue and general fulness of the limbs at the latter part of the day; sometimes he suffered from cramp, and he described a puffiness about the ankles which was stated to occur after more than ordinary exercise. The symptoms are, I need hardly say, similar to those very commonly seen in varix. In this particular case, however, I could not satisfy myself that the abnormal veins were the cause of the trouble. I therefore advised him against operation. A few weeks later he returned having assured himself that the whole of his trouble was connected with the condition of the veins; he consequently asked me to operate. I stated that I was still averse to the operation and that I must not be blamed if no material good followed the treatment. The operation was subsequently performed with considerable benefit so far as the varix was concerned, but the symptoms complained of were not affected in any way so far as I could judge. A year later the patient was seen again. The symptoms had increased, and it was clear that they were due to an obscure nervous degeneration which was presumably incurable.

THE TREATMENT OF THROMBOSIS IN VARIX.

I have already indicated the local conditions which tend to the formation of thrombus in varix and have also shown how by the removal of certain abnormalities all risk of the complication may be avoided. I now come to the final and, in some respects, the most important matter to which I wish to call attention—viz., the treatment of thrombosis in varix. Having regard to what has been said of the tendency to thrombus in varicose and valveless veins to travel rapidly and invade the main deep veins, there can be no doubt that in the vast majority of cases the interest of the patient is best consulted by the removal at once, if practicable, of the thrombosed vessel with the whole of its contained clot, in cysts and in local masses of varix in which there is reason to suspect gross direct communication with the deep veins this treatment being peculiarly appropriate. Not only does the extirpation of the thrombosed vessel remove the liability of the deep veins to become involved and ensure a speedy recovery, the convalescence being represented by the time occupied by the healing of the operation wound instead of the tedious delay of weeks or even months involved in the orthodox treatment by rest, but it also prevents recurrence of the thrombosis, a matter of no small importance, seeing that in the majority of cases in which thrombus has once formed recurrence happens, sometimes frequently, each recurrence involving the same risks to the integrity of the limb or perhaps to life which were

associated with the original attack. Moreover, it is undeniable that in those cases in which recurrence occurs crippling of the limb, if nothing worse, finally ensues, for although it may be true that actual lameness need not follow, so much care has to be taken in the ordinary use of the limb to guard against further thrombosis that it can hardly in the true sense be considered sound. Complete removal of the thrombosed vein in some instances may not be desirable, the portion of the vessel concerned being, for example, so long that the operation requisite for its removal may be under certain circumstances considered too severe. The main object of the surgeon should then be to prevent the extension of the thrombus to the great deep veins of the part. In the lower limb this access to the deep vessels in varix is usually through the large valveless saphena. Writing ten years ago, I strongly advocated in creeping thrombus of the saphena the placing of a ligature around the vessel on the proximal side of the clot with a view to arresting its progress. At the time of making this suggestion no opportunity for carying it out had offered itself, but I have since practised the method (modified to the extent of dividing the vessel between two ligatures) in several cases, in none of which has the thrombus extended beyond the point of ligature, although in each case it rapidly reached the point of artificial occlusion. It is not, I think, unreasonable, seeing the rapid extension of the clot to the point of ligature, to conclude that the integrity of the limb, and possibly life, in these cases was saved by the energetic treatment which was carried out. After ligature thus applied the portion of the vessel thrombosed may be subsequently removed at a convenient time if necessary. If there is any evidence of the existence of a direct communication between the varix and the deep veins excision of the part affected and not ligature of the saphena is obviously indicated.

A certain number of cases of thrombosis in varix lead to embolism resulting in sudden death or in pulmonary lesions of more or less gravity. In the former case the surgeon, of course, is powerless, but in the latter condition, when there is a tendency, as is not unfrequently the case, to repeated detachments of emboli, I have sufficient proof to show that incalculable good can be done by surgical means provided that action is taken speedily and boldly. As the result of practical experience I have come to the belief that when embolism has followed upon thrombosis of any of the conditions referred to as existing in the "dangerous region of varix" it is the duty of the surgeon at once either to remove the source from which the emboli are derived or to interrupt by ligature if possible the channel by which they reach the central parts. It is at once clear that such treatment must, if it is to be successful, be in the majority of cases carried out before the thrombus has invaded the deep veins. With reference to this point it is interesting to note that if embolism does follow thrombosis in varix it almost always, so far as I have seen, occurs before the clot has invaded the deep vessels. The implication of the deep vessels, if it has already taken place at the time of the detachment of the embolus, does not negative the possibility of good from the radical treatment which I recommend if the original seat of the thrombus has more than one communication with the deep vessels. For example, a cyst of the saphena in the dangerous region which has become thrombosed may have a direct communication with the deep vessels which has given rise to their rapid implication, whilst the saphena itself may be free and be the channel by which thrombus or embolism may be conducted to the central parts. In such a case removal of the original seat of thrombosis is rationally indicated, especially if the thrombus is showing signs of softening, the period of softening of course being the time at which the tendency to embolism is the greatest. The following will serve as a good clinical illustration of the apparent benefit derivable from operations under the circumstances just indicated.

I was consulted by a tall, heavy subject, about forty-three years of age, with reference to varix of the left lower limb. The whole limb was affected; the long saphena was very large and just above the level of the knee it was involved in a cystic dilatation of about the size of a walnut. The main object of the consultation was to ascertain whether the condition of the veins was any bar to cycling, very little other exercise being taken. I strongly urged the removal of the cyst with the neighbouring part of the saphena, because although I could not of course say with certainty that trouble would arise from it I thought it very probable that such would be the case. My opinion was considerably influenced by the fact that the cyst was in the situation in which a direct communication between the varix and the deep veins sometimes exists. Although the patient himself was inclined to submit to operation the adverse counsels of others prevailed and I saw nothing further of him until about twelve months afterwards, when I received a summons from the country asking me to meet him at his house as he was in trouble. Upon seeing him I found the large saphenal cyst packed with clot, the result, he declared, of a slight strain which he distinctly felt whilst cycling. There were acute local pain and redness with a high temperature (102°). The patient was extremely sensitive and nervous and although I felt that immediate operation was indicated seeing the very large size of the saphena it was deferred for reasons at the time sufficient. A week later the thrombus passed a short distance up the saphena and then remained stationary for another week. At this time without any increase in the thrombus in the saphena a very severe attack of sudden cardiac pain followed by acute dyspnœa occurred; two other very slight attacks succeeded rapidly and three days later an attack of cardiac pain and dyspnœa which nearly proved fatal suddenly supervened. After each of these attacks the local signs of pulmonary lesion from embolic infarct were present. The patient was by this time desperately ill and it seemed quite clear that if another embolus became detached the case must terminate fatally. I therefore, with the concurrence of a distinguished physician, removed the thrombosed portion of the saphena and cyst. An immediate improvement followed the operation, no further embolism occurred, and a steady although slow convalescence succeeded in spite of some indication of thrombosis of the deep veins which was just beginning to show itself at the time of the operation. The parts after removal showed that the saphena was quite free from thrombus at a point about 2 in. above the cyst, being packed with firm, healthy clot up to that level. The cyst was full of clot, which towards its inner side was softening. This softened clot, which to the naked eye was indistinguishable from pus, extended down a branch of considerable size which, leaving the cyst wall, passed deeply into the limb, extending, so far as could be judged from its length and direction, in the upper part of the popliteal or the commencement of the femoral vein.

It can hardly be denied that this is a very striking case. I suppose there is little room for doubting that the emboli which nearly killed the patient were derived from the softened clot extending along the branch passing directly to the deep vessels. Taking all the circumstances of the case into consideration it is, I submit, perfectly reasonable to assume that the removal of the parts concerned saved the patient's life. I have had experience of other similar cases in which the detachment of emboli ceased after operations of the kind now described. It must not be understood that I wish to recommend operation in all cases of thrombosis in varix, since every case must of necessity be judged according to its merits, but speaking generally the principle is, in my opinion, sound and the treatment is one which should always be carefully considered in cases of the kind.

Such are the views upon some of the points of interest connected with varix which I venture to submit as worthy of attention. It would be, I fear, unreasonable to assume that they will meet with the approval of everyone; they are, however, based upon the careful study of a great number of cases of a common complaint in which a large experience is not very difficult to obtain. I can at least say with certainty, unless my experience is strangely at fault, that the treatment of varix, if conducted upon the lines which I have endeavoured to indicate, will prove entirely satisfactory alike to the patient and the practitioner.

WATER-SUPPLY OF PONTYPRIDD.—At a meeting of the Pontypridd Town Council held on Oct. 4th Mr. Howard Davies, M.R.C.S. Eng., L.S.A., medical officer of health, stated that although the water supplied to the town was free from evidence of animal or sewage contamination it was largely impregnated with vegetable impurity. The principal ill effects manifested from drinking the water had been due to gastro-intestinal irritation. Mr. Davies added that the Pontypridd Waterworks Company supplied 80,000 persons with water and he had frequently been obliged to complain of its quantity and quality. Other complaints were received from medical men in reference to the water. After a lengthy discussion the council resolved to refer the matter to the Sanitary Committee.

An Introductory Address
ON
MODERN UNIVERSITIES.

Delivered at the Opening of the Winter Session of the Medical School at University College, Cardiff, on Oct. 7th, 1898,

BY ROBERT SAUNDBY, M.D. EDIN., LL.D. (*hon. causâ*) MCGILL, F.R.C.P. LOND.,
PROFESSOR OF MEDICINE AT MASON UNIVERSITY COLLEGE; PHYSICIAN TO THE GENERAL HOSPITAL, BIRMINGHAM; AND PRESIDENT OF THE COUNCIL OF THE BRITISH MEDICAL ASSOCIATION.

GENTLEMEN,—I am honoured by being asked to address you at the opening of your winter session and to have this opportunity of seeing your College, of meeting your teaching staff, and of saying a few words of welcome to those who commence as well as to those who rejoin their classes in the medical school. Before going on I desire to say how much I regret the absence from ill-health of our friend Professor Haycraft, and I am sure you share my hope that he may speedily be restored to health and to those studies by which he has built up a brilliant reputation for himself and has conferred lustre upon this College.

I should like to congratulate you, as students of medicine, upon the career you have chosen. There may be professions in which the work is better paid and less exacting, but there is none the practice of which affords the same varied interest if we come to our work in the proper spirit, that of naturalists or observers of nature. The present is the time for you to cultivate this faculty, and for this purpose may I urge you to study botany, not in books only, but in the laboratory and the field on every opportunity. This practice will not only initiate you into scientific methods and familiarise you with the great principles of organic structure and function, but will form the groundwork of a study which in many of the phases of life opened up by a medical career may very reasonably be pursued with pleasure and profit. Therefore neither despise this study nor regard it as of merely passing interest. Make a point of going to every botanical excursion, for you will find that you can learn more from these pleasant holidays than from much reading of books.

I hope you will excuse me for having fallen into the temptation which such an opportunity as the present affords to offer advice. But as I have said so much, will you bear with me if I make another suggestion? Learn to read French and German with such facility that the periodical scientific literature of these two great nations shall be open to you. Nothing is easier than the acquisition of this amount of knowledge, as it requires only a dictionary, a reading book, and a sufficient stock of perseverance. Above all, recollect that you are not here merely to learn how to pass certain examinations, although that is a duty which has to be kept in mind. Most of you will have in these few years of study your only opportunity of obtaining systematic instruction in scientific principles. You may not learn here how to diagnose measles or to treat whooping-cough, but you ought to acquire what is of far more importance, those habits of scientific thought which will make you accurate diagnosticians and rational practitioners.

You are fortunate in the conditions under which you are beginning your professional studies. You are students in a College possessing faculties of Arts and Science, in which students may proceed to the degree of B.A., B.Sc., &c., so that you are associated at the outset of your professional education with a broader culture than that of a purely medical school. I hope many of you have taken advantage of that wider instruction before beginning your present studies. You are alumni of a College which is a constituent part of a university. The University of Wales is the youngest institution of its kind in the kingdom, and, like all young things, it is interesting because of the immense possibilities for good or evil which lurk behind the veil that hides its future. My interest is of the most sympathetic kind, for no one recognises more than I do the influences for good which such a university may exercise under proper conditions. Doubtless for sufficient reasons your College does not attempt to give a complete course of medical instruction, but it limits its functions to the first two years of professional study—that is to say, you are taught here only botany, geology, chemistry, physics, anatomy, physiology, materia medica, and pharmacy. I should like to suggest the addition of bacteriology to this list as being most fittingly taught in its broad general principles during these preliminary years. Although there can be no difficulty in completing your school by the addition of chairs of medicine, surgery, &c., whenever your council shall see fit, there is such a well-marked natural line dividing the subjects taught from those omitted that students may without disadvantage study here for two years and then proceed to some other great school for the concluding part of the curriculum. The Principality of Wales may be proud of these first steps in the development of its medical school and should rejoice that that school is connected with its university.

English medical education has unfortunately proceeded upon other lines. The English medical schools have been purely professional training places and have grown up in connexion with our great hospitals. They have given an excellent practical training, but their deficiencies in other respects have of late years become too obvious to be denied. Hence has arisen the demand for a university for London which shall be really a place of teaching and with which the medical schools of London may become properly related. In Scotland the national universities having their seats in populous centres and not despising the encouragement of "bread-studies" have fostered flourishing medical schools which have derived great advantages from their university connexion and have contributed no little in return to the prosperity of those seats of learning. At St. Andrews alone has medical education stagnated, no doubt on account of the small size of the town; but the munificence of a nobleman well known in Cardiff, the Marquis of Bute, has now provided a building well equipped for the provision of just the same limited medical course as you have here, and it is to be hoped and anticipated, in view of the crowded state of the other Scottish medical schools, that a career of usefulness now lies before the St. Andrews Medical School.

Why is it that England should have shown herself in the past so strangely indifferent to university education; nay, one might say, so indifferent to education of all kinds? One hardly likes to say with the Bishop of London that the English public cares nothing for education, because it is difficult to conceive any apology for such an attitude which would not be too uncomplimentary to my fellow-countrymen. I am inclined to think better of them than this and to believe that it is mainly because of the sort of thing which has been so long associated in their minds with the word "education" that they care so little for it. What wonder is it if John Bull undervalues education when he sees how little learning results from four years at a great public school followed by three years at a greater university, each claiming to give the best education in the country? The day has hardly yet passed in which education at a great public school consisted in practising the art of writing bad Latin verses and the after years spent at a university still implied for the great majority no substantial addition to the scanty store of school-acquired learning. With universities and public schools in which play takes the place of work and the art of teaching is held of no account, why reproach the British public with want of care for education? The fault lies with our educationists, who neglect to teach, who despise the duty of preparing for the professions, and who have allowed the pursuit of athletics to be elevated to such a height that the future captains of the schools will not be the heads of the sixth forms but the captains of cricket, football, or boating clubs. Such an exaggerated estimate of athletics as at present finds favour in English public schools and universities is madness. It amounts to a vast waste of enormous national resources and is little short of a breach of trust on the part of heads of schools and colleges who cannot conscientiously believe that they are doing their duty to the boys confided to their care. We who, as teachers and examiners, have to do with the unfortunate products of the present public school system, know the extraordinary difficulty which they find in passing their examinations and we attribute this to their having undergone no previous mental discipline. They come to us without having acquired the power of application which it is above all the business of a schoolmaster to develop. No doubt there are hard-working grammar schools in our great cities, such as St. Paul's School in London and King Edward's

School in Birmingham, where teaching is still regarded as the duty of the teacher and application is required from the taught, but such schools have no corresponding universities to which to send their boys. They must go either to Oxford or to Cambridge, where the demon of athletics reigns supreme and where professional studies are deprecated if not despised. These universities, moreover, by reason of their remoteness from the paternal home and the consequent increased expense involved, are in many cases beyond the reach of those who desire and would profit by the educational opportunities which a university affords. In spite of public indifference and class prejudice the demand for more universities has made itself heard so far at least that charters have been granted to the Victoria University and to the University of Wales. In your own case there has been a recognition, if parsimonious, of the principle that the State must provide the necessary funds. We in Birmingham believe that a university is a necessary complement to the educational system of our city, and we are endeavouring with some success to take the needful steps for its establishment. But the great difficulty is the want of money. No one wishes a shabby, half-starved university, with a poor library, badly equipped laboratories, and an underpaid teaching staff. The ideal modern university must of necessity be an expensive institution. A few class-rooms grouped round a common hall can no longer suffice for its installation. Let me describe to you one of the smaller German universities—that of Strasburg—which has an annual attendance of about 1100 students and may therefore fairly serve as a model of a provincial university such as we should like to see, not only in Birmingham, but in other great English cities. The university buildings comprise forty special institutes fully equipped for teaching theology, law, philosophy, philology, geography, archæology, ancient and modern languages, chemistry, physiology, pathology, geology, physics, botany, pharmacy, pharmacology, bacteriology, &c. The maintenance of these buildings costs the University about 360,000 marks, or £18,000 sterling, per annum. The library contains 730,000 volumes and possesses an annual budget of 127,000 marks, or over £6000 sterling. The teaching staff consists of 56 ordinary professors, who divide among them 523,000 marks, or an average income of £465 per annum. There are 30 extraordinary (honorary) professors, 33 *privat-docenten*, and 2 lecturers, the last two classes of teachers being paid by students' fees. The total annual expenditure of the university amounts to 1,052,370 marks, or in round figures £52,000 sterling, of which sum the State contributes more than nine-tenths. No one who knows the Germans will say that they are an extravagant people and it is certain that money in many respects goes further among them than with us, so that we may assume that £50,000 a year is not an excessive estimate for the expenditure of a properly equipped modern university.

Where is the money to come from? There can only be one answer to this question—from the State. The State which has given free elementary education must complete its work and give not free but State-organised and State-equipped secondary and university education. The Lord President of the Council is reported to have said in a speech delivered by him not long ago in Manchester that it was impossible, and in his opinion undesirable, that universities should derive their main financial support from the State, for the reason that State assistance to such an extent would involve State control, and this he thought incompatible with the perfect and complete efficiency of an independent college. He admitted the indignity of colleges having to canvass for subscriptions and he saw no other source upon which they could rely than the generosity of private donors. It is not encouraging to have such opinions expressed by the official head of the educational business of the country. One can hardly believe that the speaker has got beyond the common English idea of a university as a luxury for the well-to-do. If the establishment of universities is for the benefit of the nation at large the nation must and will pay for them. Are they or are they not beneficial? This is the only question worthy of discussion. The objection that State control is opposed to university efficiency is contradicted by the experience of all civilised countries, England alone excepted, where, be it observed, it has never been tried. In Scotland the universities receive very substantial assistance from the State and this has not been accompanied by any paralysing effect. On the whole there is much to be said for a certain amount of State control, as in all university matters a Minister is a fairly impartial referee, able and willing to hear all sides of a question and to decide without respect to local considerations, and in the long run it is certain that national rights will never be sacrificed to those of a class, as has happened so often when funds have been placed in the keeping of private trustees. The worst of all evils in a university is the want of adequate funds, and I would rather see the establishment of our Birmingham University postponed for a generation than get one to-morrow which would be badly equipped and cramped in every direction, or, worse still, that it should under pressure of competition attempt too much and do nothing well. I trust we shall show a strong determination to work within modest limits until the public comes to our aid and insists upon proper State support being given to institutions able to put forward such claims upon the national purse.

What are these claims? The national importance of the work done and the impossibility of raising sufficient money in any other way. There are only three possible bases upon which a university can be carried on. The first of these is a commercial basis. University experience has failed to produce a satisfactory example of this type of institution, nor need we go to America for illustrations of the bad results which the commercial spirit, stimulated by want of funds, can produce in university affairs. The second basis is private benefaction or endowment, by which means great universities have been founded in America, but there is not the same rapid growth of wealth in this country, nor is there any modern instance here of the gift of such a vast sum as would be needed to build and endow a single university. No doubt there have been several cases in America, notably the Universities of Cornell and Johns Hopkins. To build and endow a modern university would require about two millions sterling, but even if this vast sum could be obtained it would not be under proper public control and there would be no guarantee that it would always be applied for the national benefit. Permanent endowments in private trusts are not the most desirable social institutions, and no country has more illustrations of money misapplied in this way than has England. To tell us, as did the Lord President of the Council at Manchester, that we must wait until some benevolent persons provide these vast sums is equivalent to postponing the foundation of suitable modern universities to the Greek Kalends. The third and only practicable basis for a university is that of State support, which has in its favour the very strong argument that it has been accepted by every civilised country in the world, England alone excepted. France spends 7,500,000 francs (£300,000) on university education, having nearly doubled the State contribution during recent years, for in 1870 it amounted to only 4,215,521 francs (£168,620). She has, moreover, found it desirable to encourage provincial towns to find funds for university buildings and has granted to each provincial faculty the title of "university," so that there are now 15 universities in France expending over 12,000,000 francs (£480,000), of which 7,500,000 francs, as already stated, are derived from the national exchequer. These 15 universities educate 26,000 students, which is in the proportion of one student to 1400 of the population of France, the cost of each student to the State being about £11 10*s*. Taking the population of France at 38,000,000 she has one university to about 2,500,000 of people. In the whole of Germany there are 21 universities, educating 30,000 students, giving a proportion of 2,100,000 persons to a university and one university student to 1400 of the general population. I cannot give you the total expenditure, but the Government contributions amount to upwards of 14,000,000 marks (£700,000) and the annual cost to the State of a university student is something like £23. England possesses 4 universities, not one of which is equipped so as to fulfil modern requirements. They are in the proportion of 1 to 6,500,000 of the population and they educate 9000 students, which number gives one university student to every 3000 persons. I am quoting these figures in order to show you what vast sums two great nations are now spending upon university education and to contrast with them the miserable £25,000 which our Government deems sufficient for the needs of England with a population of 27,000,000, whose welfare, livelihood, nay, very existence, depends upon the maintenance of the commercial and the industrial supremacy which the country has enjoyed for more than a hundred years, but which is in danger of ebbing away to better educated rivals. I may be told that the sort of education the university affords is not of much use in trade. This is the often heard fallacy, but even were

it true it is also true that education proceeds from above downwards and not from below upwards, and that if you want to improve our national education and to give it that practical character which is needed you must have teachers who are imbued with the modern spirit and have been educated in universities of the modern type. We hear a great deal of nonsense talked about the danger to a university if studies are pursued there for any other purpose than the love of learning, but we do not hear of the danger of stagnation which results when the university excludes from its walls all interest in the busy active life of the world. Does Oxford, where this doctrine is carefully cherished, contrast favourably with the universities of Germany, where professional training is not despised? Which is more in touch with modern thought? which contributes most to the progress of science or even of scholarship? The answer cannot be doubtful. I admit that in a country like ours, which is saturated with the commercial spirit, there cannot be so great a devotion to pure science and scholarship as in Germany, and it may be conceded that students, professors, and governing bodies in this country are all alike too apt to consider what will pay them best; but although this tendency needs a check it does not lead to the stagnation which takes place when an institution is shut off completely from the main stream of human interests and ambitions. In the modern university, just as the students go there not to play but to learn, the professors should be appointed to teach and to inspire a love of learning, not to enjoy leisured ease or the empty dignity of an academic title and position. Heaven forbid that I should suggest that the sole duty of a professor is the oral delivery of lectures in a class-room. I admit with regret the existing tendency in some quarters to impose far too much class-room teaching upon the professors, but there is the opposite extreme where the titular professor gives no lectures, takes no part in training anybody, or only delivers an occasional brief course which forms no part of the work of the student for his degree. The professor must not only teach but must be capable of inspiring a love of learning, to do which he must be himself a student, working at the head of his class, leading the way to new ideas, fresh facts, and broader inductions. The teaching of the professor must be supplemented by tutorial classes—*conférences* on the French and German plan, where all the talking is not on one side, where questions and answers bring out and test the student's knowledge, clear his ideas and fix them in his mind. Finally, there must be compulsory attendance at frequent written class examinations. Such work in the class-room should be in part the preparation for, in part the complement of, the work in the museums and laboratories. The modern student must not only read about the thing taught, but he must see it, and, if possible, handle it. This condition demands space and materials which cost money, but such a real and truth-promoting method will surely have the approval of a practical people and will not be allowed to lack the necessary means. I believe that the more the nation hears about modern educational methods the sooner the prejudice against university education will die away and the demand for the establishment of the necessary institutions will become irresistible. Unfortunately, it is not possible to demonstrate to a popular audience the work done in a laboratory. For popular instruction the lecture system is alone fitted, and popular lectures, that is, lectures which seek to be intelligible to persons who possess no previous training on the subject, must give a poor idea of the practical side of modern scientific education.

The passage through Parliament of the University of London Reconstruction Bill has given a final blow to the hapless idea that a university might be merely an examining board, whose students could be left to acquire instruction how and where they pleased. But a not less objectionable makeshift is now popular—namely, that of uniting together a number of different colleges, heterogeneous in essential features, situated perhaps in widely separated cities, composed of persons who cannot be expected or desired to see everything eye to eye with each other, possessing different aims and aspirations. From this ill-assorted union is formed a so-called federal university. The chief merit of the plan is that it economises parchment, but this hardly seems a sufficiently important ground for such a departure from the lines upon which universities have hitherto been successfully established. The failure of this method in Ireland is most conspicuous, and it is much to be regretted that it still finds favour with our educational rulers. It is of course for the State to determine in which centres universities shall be established, but it is impossible for a university to distribute itself satisfactorily over several different and distant places. The unfortunate result is a plurality of second-rate colleges and nowhere that superiority of at least some one department which gives character to a university and raises the tone of the whole of its teaching. I am aware that your university has been patched together in this way, but you are still in the early days of the experiment. I recognise that there may have been a difficulty in adopting any other plan, but it will be most unfortunate if the precedents of Victoria and of Wales are regarded by the Government as a justification for the extension of the process to other localities where no such reason exists. In reading the charter of your university I was much surprised at the prohibition against the possession of real property to a greater value than £10,000 per annum. At the present time the restriction is probably not very burdensome, but it is difficult to understand why a royal charter should impose a disability from which other corporate bodies are free, or why it is that the State which takes such a narrow view of its financial obligations towards university education should seek to hamper such institutions in the nature of the bequests they may receive or the investments they may hold. This restriction is in the spirit of the Mortmain Act, which, whatever its utility in the Middle Ages, is now out of date. The other disability imposed by your charter is the clause withholding the power to grant degrees in medicine. I suppose the reason for this was the non-existence of a medical school in connexion with either of your colleges, but I think it would have been better if the power had been granted subject to the supervision of the General Medical Council, which has statutory control over all qualifying examinations and courses of study. The relation of universities to medical education can be solved in only one of two ways: either the State as represented by the General Medical Council or some other statutory body must itself conduct qualifying examinations, or this work must be left to the universities and the State content itself with the right of supervision. On the whole the latter seems to be the plan which has the advantage, for it is not only that which at present exists, but it is the one which most civilised nations have adopted. I suspect that there was no great anxiety on the part of those who had to do with procuring this charter for what they perhaps considered the doubtful privilege of engaging in medical education. Unfortunately we know that such an objection exists in certain quarters and has played no small or doubtful part in hindering the progress of medical education in England. If Cambridge has within the last generation burst asunder the bonds of prejudice and has founded a flourishing medical school, Oxford still misapplies its medical endowments and declines to reorganise its medical faculty. I hope the University of Wales will always welcome medical students and I hope that when circumstances permit the completion of this medical school steps will be taken to acquire the necessary powers for conferring degrees in medicine.

The modern university, if it is to have popular support and to play the part that it should do in our national life, must not despise what the Germans call "bread-studies," but must feel pride in training men to be useful as well as learned citizens. Law, medicine, engineering, architecture and music are not unworthy to be associated with the most distinguished culture, and while those who study them in a university gain incalculable educational advantages, the university which undertakes these functions can be no loser from being thus brought into relation with the highest and best of the secular professions. I do not wish to disparage Oxford or Cambridge, which are delightful places for study and for amusement, affording a choice of either to those so fortunate as to be able to live there, but they are not and cannot be popular universities such as the nation needs. These must be seated in our great and populous cities and be near the homes of the youth of both sexes who demand university education. In such universities the study of ancient languages and higher mathematics cannot be allowed so preponderating a position as has been assigned to them at Oxford and Cambridge, although their educational value must be duly recognised. In this respect the University of Wales has begun well, the syllabus of its course of arts studies offering much worthy of imitation by similar bodies. There should be universities in Manchester, in Liverpool, in Birmingham, in Leeds, in Newcastle,

and in Bristol, and we should look forward to seeing one before long in Nottingham and another in Norwich or in some city of East Anglia. As already contended the new universities must be mainly supported by the State, but the Government may fairly claim that a certain proportion of both capital, expenditure, and income should be provided locally. This would afford some evidence of the reality of the demand. In the expenditure upon sites and buildings the Government might ask that half the cost should be borne by the localities, but a smaller proportion of the annual budget, such as a third or two-fifths, would be enough to stimulate local liberality and to prove the seriousness of the promoters. Once these institutions are established and get into working order I do not fear for their future. The good they will do will secure public recognition and will make it impossible for any Government to refuse whatever sums may be necessary to maintain their efficiency. This question of modern universities for our great cities is one in which all classes may be asked to interest themselves, for all are members of the commonwealth and share in the well-being. But it is a matter which especially concerns those who live by their own labour, whether of head or hands. This class is much larger than any other and under our democratic constitution is able to control the Government. The one thing necessary is to rouse it to a sense of its needs, and this work of awakening can be effectively carried on by every man who believes what I have said to be true. Our task is to explain the aim and the method of a modern university, to show the people the advantage to them of having near their reach such institutions in which their sons and their daughters may gain the advantages of a splendid practical education, and to urge that, following the example of other civilised Governments, it is the duty of our Government to aid by substantial money grants the formation without further delay of such universities in our principal English cities. I think the establishment of the succession duties affords an additional claim for Government help, as this heavy tax is levied upon those very sources of charitable bequest which the Lord President regards as the only available means for providing more universities. This tax has been so successful and the total amount of revenue now raised is so enormous that it is incredible we should go on spending so much upon the navy which is to protect our trade and so little upon the education which is needed to keep any trade to be protected.

Just one parting word to you to whom I am especially speaking to-night, the medical students of Cardiff. You have made choice of a noble profession. See to it that you live nobly, for if you wish to understand goodness or beauty or religion you must, as Schopenhauer says, evolve them in your lives. Time will bring its roses to all of you, but not to all fame or wealth. But if I cannot promise that you will all become medical baronets, or even medical knights, I can assure you that there is no profession in which success most certainly attends attention to business or in which so good an income can be as readily secured. Do not despise the expression "attention to business," for it is just in business qualities so many of us fail, and whatever the sphere in which your talents place you, the common virtues of industry, order, and punctuality will more than anything else determine the relative amount of your success. Bear in mind that success has its dangers and that the "millstone of poverty" (to quote Carlyle) may often be "the necessary ballast that keeps our centre of gravity right." No profession is more exposed to the temptation to petty acts of injustice or more in need of the prayer against envy, hatred, malice, and all uncharitableness. We are given to magnify trifles and quarrel over twopenny-halfpenny matters, talking much about ethics and doing things which are truly feminine in their petty meanness. We are prone to cry out against all that exists and to say with Jack Cade, "There shall be in England seven halfpenny loaves sold for a penny, the three-hooped pot shall have ten hoops, and I will make it felony to drink small beer." This revolutionary spirit, be it well understood, applies only to matters medical, for in general politics we are usually very conservative. The clamour for better pay and greater privileges depends in part upon inability to recognise the true position which we hold in society. That position depends mainly upon the public belief that we are a disinterested profession and that belief rests upon the vast amount of public work we do for nothing. But if we follow the advice of some of our friends and seek to put the market price upon all our services must we not reckon upon a change upon the part of the public which may not be to our advantage? Many acts which are full of grace and are accepted gratefully as free gifts become of doubtful value when the value has to be appraised in hard cash. Would not our relations with the public lose their character of friendly intimacy which now distinguishes them and in return for a more strict debit and credit account should we not find ourselves placed upon a purely business footing? Is it, therefore, certain that we should improve our position by seeking the uttermost farthing of the debt due to us? In your relations with your colleagues avoid giving offence and if you have any difference strive to make as little noise about the matter as possible. Do not indulge in personal controversies and shun the men who do.

> "Surely after all
> The noblest answer unto such
> Is perfect silence when they brawl."

Be honest men and gentlemen. In time to come you will know the joy of wife and child, and with that substantial basis for your happiness you will find pleasure in your work and sufficient human and scientific interest to satisfy you so long as your lives shall last.

A CASE OF HYSTERICAL CONTRACTION OF THE FOREARM SUCCESSFULLY TREATED BY SUGGESTION.

BY SARAT K. MULLICK, M.B., C.M. EDIN.,
ASSISTANT PHYSICIAN AND REGISTRAR TO THE NATIONAL HOSPITAL FOR DISEASES OF THE HEART AND PARALYSIS, SOHO-SQUARE.

A GIRL, aged nine years, attended the out-patient department of the National Hospital for Diseases of the Heart and Paralysis on Oct. 21st, 1896, and was found to be suffering from mitral regurgitation with considerable enlargement of the heart. As she complained of faintness, dyspnœa, and palpitation on exertion it was obvious that there was a certain amount of failure of compensation, although the physical examination showed that the right side of the heart was still sound. The left arm was rigidly flexed at the second phalangeal joint with the hand extended on the forearm, and she was unable to open her hand or straighten her arm. The toes of her left foot were also crooked, and there was evidently loss of power in the flexor muscles, as the foot dropped to a certain extent in walking. The muscular affection appeared to date from eighteen months previously when she was said to have fallen down and to have been unconscious for some hours. On recovery her arm and leg were found to have lost power and she complained of pain in the back of her head. Seven months afterwards she had a similar attack and was unconscious for four or five days. The muscular condition was considered as probably due to hemiplegia of embolic origin and she was treated for the cardiac trouble as an out-patient. On Dec. 2nd, 1896, she was admitted into the hospital. After about two months' treatment she was discharged, her condition being greatly improved, but the fingers and toes being in much the same condition as when she was admitted. She continued to attend as an out-patient and was treated with citrate of iron and quinine. In March, 1897, she was put under electrical treatment and was faradaised regularly twice a week for about eleven months with no obvious benefit. In February, 1898, she was again admitted as an in-patient. The fingers and toes were, if anything, more contracted, the former being in the position shown in Fig. 1. In a few days I observed certain signs which led me to believe that there possibly might be an hysterical element in the case. I observed one night when she was soundly asleep that her fingers and toes were not flexed and that without disturbing her I could move them with the greatest ease. I further observed that when she walked about as she thought unobserved or when her attention was directed away from herself she could walk much more naturally and with greater facility than at other times. This instantly changed whenever she was watched. Moreover, on making a careful examination the muscles both of the arm and of the leg were found to be in no way abnormal as regards their electrical reaction nor was there any wasting. Taking these facts into consideration in conjunction with the history of recurrence I came to the conclusion that the spasmodic

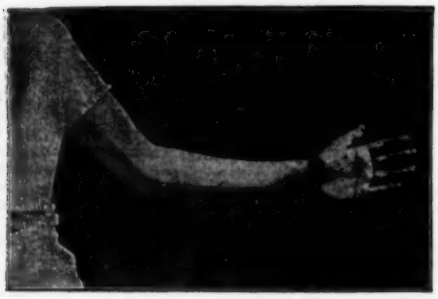
contraction was not, as was originally supposed, a post-hemiplegic rigidity due to embolism resulting from the cardiac lesions but to hysteria. On arriving at this conclusion I determined to attempt to influence her by suggestion and made the first experiment on Feb. 15th.

Before being operated upon the patient was asked to open her fingers voluntarily, which she was unable to do. Then one by one her fingers were quickly forced open, but they at once went back to their original positions. Then the suggestion was tried in the presence of a nurse. Screens were put round the patient who was asked by me to look steadily into my eyes for a few minutes. Thereafter I opened out the fingers one by one, first the little finger, which offered the greatest resistance, then the others in their turn

FIG. 1.

which became increasingly easy to open. It was then suggested to her that she could keep them open, which she did for five minutes, after which they remained half flexed. Again they were put straight and remained so under my suggestion. The conviction was then brought home to the patient that if she liked she could always keep them open. In order to make this conviction lasting her affected hand with fingers extended was put upon a padded splint for nine hours. When taken off the fingers were quite straight. At first simple and then complicated manipulative exercises were tried. Gradually the stiffened fingers became pliable and in a week she was able to perform the most complicated movements. The toes were treated in the same way, with the exception that the padded splint was not used. When they

FIG. 2.



were half straight she was put on tip-toe exercises for ten minutes at a time. In the beginning of these exercises she was allowed to place her left hand on the table, flexing and extending her fingers with the double object of supporting the body and strengthening the fingers. As the toes became stronger the hand support was taken away. When in bed she was made to flex and extend her toes and fingers voluntarily for twenty and thirty minutes off and on daily. She left the hospital in a couple of months with her general condition greatly improved and her fingers and toes strong, pliable, and useful (see Fig. 2).

This case possesses considerable interest inasmuch as it is a typical example of a certain form of hysteria occurring at an unusually early age, and it is, moreover, an object-lesson in the danger of overlooking the true cause of a morbid condition in the presence of another adequate antecedent. The motor symptoms of hysteria are tremor, incoördination, spasm, and paresis, and in practice we commonly find the last two in combination as in the above case. The special points of interest in the case may be summarised as follows: 1. The age of the patient. It is only of recent years that we have recognised the fact that it is comparatively common to get well-marked hysteria in children. According to the statistics of Clopatt (quoted by Gilles de la Tourette), out of a total of 272 cases of hysteria occurring in children under fifteen years of age only 15 were in girls nine years of age. 2. The onset. Hysterical paralysis may commence suddenly or come on gradually. In this case it was ushered in by what was in all probability an hysterical fit, which was followed by a brief period of unconsciousness. 3. The recurrence. The patient recovered from the first attack and had a similar one seven months later the effects of which were more enduring. Such a recurrence is rare, but when it does occur it is absolutely diagnostic of hysteria. Richer in his work, "Paralysie et Contractures Hystériques," under the heading of "Paralysie Erratique," records such a case and others may be found scattered through the journals, but they are not frequent. 4. The electrical reaction of the muscles. In Richer's case there was abolition of the electrical contractility of certain groups of muscles. In the present case the electrical reactions were absolutely normal. 5. The parts affected. In hysterical spasm affecting the arm and leg it is usually the latter which is most affected. In this patient the contrary was the case. 6. Sensibility. Hyperæsthesia and anæsthesia so common in hysteria were not present in this patient. 7. The special senses were normal. 8. The type of the contraction. In most of the recorded cases of hysterical contraction of the forearm the hand has been flexed. In this case, on the contrary, the extensor muscles were chiefly involved and the hand was carried right back into a position at right angles with the forearm. 9. Tremor was entirely absent. 10. Treatment. After the failure of galvanism the patient was cured by simple suggestion. There was no attempt made to induce the state of trance, nor do I think it necessary. I have always found that cases which could be influenced for good by hypnotism could also equally benefit from simple suggestions if repeated often enough.

Soho-square, W.C.

PERFORATIVE APPENDICITIS; DIFFUSED PERITONITIS; DOUBLE LAPAROTOMY.[1]

BY ARTHUR MAUDE, L.R.C.P. LOND., M.R.C.S. ENG.,
AND
J. RONALDSON RUSSELL, M.R.C.S. ENG., L.R.C.P. LOND.

THE mortality from diffuse peritonitis secondary to perforative appendicitis is still so high that any individual cases saved by laparotomy are of value for statistical purposes. Of the 36 cases collected by Dr. H. P. Hawkins no less than 27 died, and according to Treves[2] of these cases (Hawkins's) those which died within a week of the onset of symptoms presented general peritonitis probably from the beginning. Out of 340 cases of appendicitis at the Methodist Episcopal Hospital[3] in ten years 11 had diffuse peritonitis, were operated on at an average of five days' duration, and 9 died. The dangers arising from early operation in the hands of even operators of very moderate experience, such as ourselves, are infinitesimal compared with the danger of diffused peritonitis. The good effected by merely draining the abdominal cavity was in this instance most striking.

A delicate boy, aged sixteen years, had presented no previous signs of abdominal trouble. On April 23rd, 1898, he began to ail, complaining of general colicky pain in the abdomen; micturition was frequent and painful. On the 25th he was worse and constant vomiting began. No action

[1] From notes by Mr. Maude.
[2] Perityphlitis, p. 36.
[3] Brit. Med. Jour., Epitome, Aug. 27th, 1898 S. 146.

of the bowels occurred after the 23rd. He was seen by Mr. Russell, who considered that he had probably a volvulus or some form of acute obstruction, though he was suspicious of general peritonitis from the first. He asked me to see him on the night of the 28th, when I found the abdomen distended, tympanitic, and intensely painful and tender. There was constant vomiting, not fæcal, no signs of intussusception, and no special signs pointing to typhlitis. We considered diffuse peritonitis certain and probably secondary to a volvulus or some appendix trouble. We tried large enemata gently administered and arranged for a laparotomy next day. His condition was then very threatening—vomiting was constant, the pulse was rapid and failing, and his general state was very bad. I decided to open in the middle line in the absence of any defined typhlitic symptoms and in order to be able to explore the peritoneum thoroughly. The peritoneal cavity was distended with intensely fœtid sero-pus. There were no adhesions in the upper part, but the right iliac fossa was almost shut off by loose recent adhesions. Finding no band or apparent intussusception and the boy's condition being very bad we decided not to explore the cæcum further but passed a drain down to it, flushed out the peritoneum with hot water, and closed the wound with fishing-gut sutures for the peritoneum and silk twist for the abdominal parietes. He rallied in a few hours and by next day the bowels acted naturally, his pulse fell to 80, and the vomiting ceased. The discharge from the general peritoneal cavity rapidly decreased, but intensely fœtid, necrotic-smelling pus coming still from the cæcal region, on May 18th I made an incision of 3½ in. parallel to Poupart's ligament, having its middle over McBurney's spot, and cut down into a double abscess cavity, at the bottom of which I found the appendix firmly bound down, curled up, shrivelled, and lying in contact with it a stercolith exactly resembling a cherry-stone. The median drain was removed and a fresh one inserted into the second wound. The median wound healed rapidly. The patient made a tedious but uneventful recovery, but the cæcal abscess cavity was slow in filling and a residual sinus remained for many months. In July he threatened a relapse of perityphlitic suppuration, the sinus being still open. As his circumstances were very poor we removed him to St. Bartholomew's Hospital, where Mr. Marsh kindly admitted him. Mr. Marsh opened up the sinus, and finding it superficial decided very judiciously not to explore further but to pack the sinus, which accordingly healed slowly by Sept. 2nd. The patient is now fat and well.

Remarks by Mr. MAUDE.—These operations were performed in a poor cottage in the country, where we had to bring even the sterilised water necessary. The patient had no professional nursing the whole time, though a trained and highly skilled nurse was in charge at each operation. The case reflects great credit on Mr. Russell, who conducted the dressings and assumed charge during this long period from April 30th to July 17th.

Westerham.

A CONTRIBUTION TO THE PATHOLOGY OF BERI-BERI.

BY W. GILMORE ELLIS, M.D. BRUX., M.R.C.S. ENG.,
MEDICAL SUPERINTENDENT, GOVERNMENT LUNATIC ASYLUM, SINGAPORE.

FOR years past beri-beri has been endemic in the Singapore Asylum, defying all efforts to effectually stamp it out. 50 per cent. of the total deaths in 1896 were due to this cause alone, nearly 60 per cent. in 1897, and up to the end of June in the current year there have been 129 cases out of a daily average number of 228 resident patients with 25 deaths. Though the disease occurs principally in the damp, low-lying, ill-ventilated wards of the lower levels, no part of the asylum is free from cases, and though it is most widespread during the rainy periods, yet it crops up all the year round. The large majority of cases have been, in the first instance, of the so-called moist variety of beri-beri—viz., that in which there is no tenderness of the calves or forearms, no hyperæsthesia or anæsthesia so far as one can make out (but the symptoms connected with sensation are always difficult to determine among the insane), no muscular atrophy—in fact, no obvious neuritis, but in which there is considerable general or localised œdema with great weakness and loss of knee-jerks, the superficial reflexes being usually unaffected. The œdema frequently clears up in the course of a few weeks under treatment by free purging, with diuretics (especially digitalis) and full doses of strychnine, but unfortunately relapses nearly invariably occur, patients only recovering to be again struck down in from a month to a few months' time, and so cases may continue for a year or even longer. But sooner or later serious symptoms supervene, these being lung œdema, hydrops pericardii, cardiac failure, functional murmurs, reduplicated heart sounds, epigastric tightness with præcordial and substernal pains, dyspnœa, and vomiting, this latter symptom being generally of grave import. It should be noted that the degree and extent of the œdema are not proportioned to the gravity of the attack; patients completely water-logged often make good recoveries, while others who are but slightly swollen frequently die.

The degeneration which is found in the nerves of the extremities in patients who have suffered from the so-called dry or paralytic beri-beri is not to be found in many of the cases seen here, and at one time I, with others, was somewhat in doubt as to whether these were really cases of beri-beri, but noticing the fact that many of the patients soon after losing all or some of their œdema developed all the symptoms of peripheral neuritis led me to wonder whether other nerves than those commonly affected were not involved in some cases, and I was strengthened in this conjecture by a paragraph in a short paper on beri-beri by Dr. M. Simon, published in the *Journal of the Straits Medical Association* for 1891-92, in which he states his impression that the œdema may be caused by neuritis of the vaso-motor nerves. I commenced therefore to examine some of the nerves of the sympathetic system. I have now examined a large number of nerves removed from patients dying from the disease and have met with many cases in which all the peripheral nerves were healthy, but in which some or all of the following nerves were markedly degenerated — viz., the phrenic, branches of the cardiac and pulmonary plexuses, the splanchnics, branches of the solar and renal plexuses, branches to the mesentery, and vaso-motor branches to the aorta, renal, splenic, and tibial arteries. In no case of death from beri-beri have I failed to find degeneration of either the phrenic, pneumogastric, or branches from the cardiac plexuses, showing, it seems to me, definitely that death invariably occurs in the disease from implication of some of these nerves. The phrenic is the nerve most frequently involved.

Many exceedingly fine fibres are often to be noticed in carefully teased-out specimens of sympathetic nerves and I have considered these to be degenerated Remak's fibres, the sheath only remaining, and in this I agree with Dr. von Tunzelmann, who has expressed a similar opinion in an interesting paper on Beri-beri published in THE LANCET of Dec. 22nd, 1894. Other Remak's fibres show a proliferation of their nuclei probably pointing to commencing disease. Fibres not quite so fine are also to be noticed among medullated fibres from peripheral nerves which have undergone advanced degeneration and are probably collapsed Schwann's sheaths. In one case which had been for a long time prior to death affected with peripheral neuritis I found in the peroneal nerve a new fibre passing through an old nerve fibre sheath showing cessation of degeneration and recovery in progress. One patient under my care who has been paraplegic for over a year is now commencing to walk.

It may be mentioned that many examinations of blood from beri-beri patients have failed to show the bacillus which Pekelhäring and Winkler claim to have discovered, and unfortunately cultivations from the blood, and after death from the spleen, stomach, nerves, and other organs, have as yet given no useful results in my laboratory. Examination of blood with Gowers's hæmacytometer has shown the corpuscular richness to be normal in nearly every case, whilst the hæmoglobinometer has indicated in every case examined a deficiency of from 15 to 20 per cent. of hæmoglobin. Control experiments were made upon healthy persons living under the same surroundings.

In 125 necropsies of patients dying from beri-beri I found the average weight of the heart to be 13·37 oz., the right side in nearly every case being much enlarged; over the same period of time 204 hearts from patients who had died from other diseases were examined and they averaged just under 9 oz. In the 125 cases of beri-beri referred to the

spleens averaged 9·27 oz. in weight; the spleens of the 204 other cases averaged 6·28 oz. The kidneys and liver were sometimes, but rarely, congested. In the same 125 cases of beri-beri I found œdema of the lungs (usually to a slight extent) 73 times, hydrops pericardii (varying from 1 oz. to over half a pint) 86 times, hydrothorax 10 times, and ascites 5 times.

Latterly I have been paying attention to the condition of the stomach and have found the lining membrane of that organ congested 31 times in 57 cases post mortem, in most of the cases intensely congested, especially on the ridges of the corrugations. In 4 cases there were blood-clots present in the stomach, possibly due to the persistent vomiting, from which all had suffered prior to death.

In conclusion, it seems to me that the degeneration of the peripheral nerves in the paralytic cases and of the sympathetic, phrenic, and vaso-motor nerves in the moist cases is the cause of the obvious symptoms of beri-beri; that mixed cases are most common; and that beri-beri is a most recoverable disease so long as the pneumogastric, phrenic, and branches from the sympathetic ganglia in the neck are unaffected, but that when these nerves, all or any of them, once become attacked death is imminent.

I have to thank Mr. H. J. Gibbs, assistant medical officer, for much assistance in preparing a very large number of the microscopical specimens.

Singapore.

UTERINE HÆMORRHAGE AS AFFECTED BY THE CLIMATE OF ALTITUDES.

BY SEPTIMUS SUNDERLAND, M.D.,

PHYSICIAN TO THE ROYAL HOSPITAL FOR WOMEN AND CHILDREN, LONDON; PHYSICIAN TO THE ROYAL MATERNITY CHARITY OF LONDON.

CHRONIC bleeding from the uterus is oftentimes so difficult to overcome that one grasps at any hopeful plan of dealing with it satisfactorily. I have therefore thought it necessary to bring to the notice of the profession the strikingly beneficial, though temporary, effect of a high altitude in three cases of obstinate menorrhagia, which was recently forcibly brought to my notice.

A patient, aged thirty-nine years, with chronic enlargement of the uterus causing severe menorrhagia, for which I have frequently prescribed during the past few years, was sent by Dr. Symes Thompson to winter at St. Moritz (about 5800 ft. above sea-level) in 1896–97 on account of contraction of a lung caused by influenzal pneumonia. She was accompanied by her daughter, aged thirteen and a half years, who had been under my care for several months for the menorrhagia of puberty, which was with difficulty kept in check by drugs.

CASE 1.—The mother when she first came under my notice four years ago had for some years been obliged to use as many as 40 sanitary towels at each period, and in addition suffered from irregular attacks of hæmorrhage. Treatment abolished the latter and reduced the periodical flow, which, however, had always remained excessive, as many as from 25 to 30 towels being necessary at each period. During the three and a half months passed at St. Moritz three periods were seen; their duration was shorter, there were fewer clots, and the flow was diminished in quantity about one-half, only from 12 to 14 towels being worn.

CASE 2.—The daughter's menstrual function had begun six months before leaving for the Engadine. The periods had been very profuse with a fortnight's interval between them and had lasted five days, about 15 towels being worn at each flow. During her stay at St. Moritz there was an interval of a month between the periods, which lasted only four days instead of five, and the quantity was reduced to about one-half.

So far so good, but after their return to England at the end of March the periods returned both in mother and daughter in the same quantities and with the same frequency as before. Drugs, however, have now diminished the quantity in the girl.

CASE 3.—A patient who suffers from climacteric menorrhagia, for whom I have prescribed on several occasions during the summer of 1897, has recently returned from a stay of five weeks at Arosa (altitude about 5500 ft.) whither she accompanied her son, who had been sent there by his medical attendant. During her stay at Arosa she had one period which lasted four days instead of the usual time, seven or eight days. She states that she lost only about half the quantity of blood which she had been in the habit of losing during the previous fifteen months and that instead of having repeated sudden gushes there was a steady flow throughout.

I have not been able to find any recorded statement of the usual effect of a high altitude on chronic uterine bleeding, and Dr. Holland of St. Moritz, under whose care the first two patients were placed during their stay, has favoured me with the information that he has made no special observations on this point. But the marked diminution in the amount of the menstrual flow in these three cases raises the question whether residence at a high altitude should not be recommended in certain cases of chronic uterine hæmorrhage where ordinary methods of treatment, including curetting, are of no avail, and in which it is important to check the hæmorrhage in order to spare the patient the more serious operation of extirpation of the ovaries or of the uterus. There are many cases of uterine hæmorrhage in debilitated subjects, especially from fibroids, in which the risk of a major operation is dreaded by some surgeons as much as by the patient, and it is for such that I myself in future shall feel disposed to advise residence for a time at a high altitude. I would also suggest a trial in menorrhagia due to subinvolution of the uterus after childbirth or miscarriage which do not respond to treatment or curetting. Sufferers who can bear the expense would be glad to avail themselves of the chance of relief afforded by such a change of climate, and it is possible if benefit be experienced from a short stay that a prolonged residence might produce a curative effect which was not found in the three cases which I have related. At any rate, even a temporary cessation from the draining and debilitating sanguineous flow would improve the anæmia and consequent feeble condition of such patients and give a little time for recuperation of strength and health which would assist them materially to bear their ailment, even if it should recur on returning to their ordinary place of residence. Further, the attendant anæmic state would be improved because both the number of red blood-corpuscles and the amount of hæmoglobin are considerably increased directly after arriving at an elevated region from a plain, probably (up to a certain point) in direct proportion to the altitude. The experiments of Paul Bert proved that the blood of animals living in high altitudes absorbs more oxygen than that of similar animals living at ordinary elevations, and successive experiments of Müntz, Viault, Egger, Mercier, and Miescher have gradually proved the facts which I have just stated with regard to the increase of red blood-corpuscles and hæmoglobin.

It will be interesting to determine whether the highest elevations available in Great Britain can be made use of to any extent in such conditions, and I believe they may. In seeking for a rational explanation of the causes of the lessened menstruation in the cases I relate it must be conceded that a low temperature was certainly one important factor in diminishing the amount of the menstrual flow. I have frequently noticed that many women menstruate less in winter than in summer, and we know that "some English-women of feeble development menstruate in summer only, and others too freely in hot countries, though not at home" (Robert Barnes), while some menstruate in hot countries and not in England. And since the temperature falls in ascending mountains about one degree Fahrenheit for every 300 feet (with certain exceptions in connexion with situation, shelter, &c.), I consider that it is certainly worth while trying such elevations in our own country for many patients who cannot bear much expense and do not care for exile to more elevated localities abroad, especially for those who habitually reside in moist, relaxing, and low-lying neighbourhoods. These moderate elevations would be also worth trying for numerous nervous and excitable patients who cannot reside at a very high spot without suffering from distressing nervous symptoms. In selecting such a place in Great Britain an elevated region with a low mean temperature should be chosen where the air is as free from moisture as possible and the soil well drained and dry, for in addition to a low temperature as a factor in the diminution of the flow in the cases which I have related one must conclude that the dry, tonic, and bracing climate had a beneficial effect by improving the general condition of the patients. Possibly this bracing effect may also act through

the nervous system, controlling and regulating menstruation.

Whether the improvement in the quantity and quality of the red blood-corpusules (which I have already referred to) caused by residence at a high altitude, had any effect or not in preventing free exudation of blood from ruptured or unruptured capillaries of the uterine mucous membrane it is not easy to determine. One might imagine this to be the case, remembering that on descending to plains after residence on mountains the red blood-corpuscles in human blood diminish again in number and quality (though usually only to the normal standard) and that in 2 of the cases under consideration the menorrhagia recurred soon after the patients returned home. We may, I think, at least assume that during residence at a high altitude the muscular tissue of the uterus and the walls of the uterine capillaries and small veins become firmer and less liable to rupture, in common with the increased nutrition and generally improved condition of all the tissues of the body; also that there is less venous congestion, owing to the more frequent pulsations of the heart and to the better tone and contractile force of the heart and of the arteries supplying the uterus, and to improvement in the whole circulatory apparatus.

But apart from all these causes I would suggest that the lessened barometric pressure which obtains at a high altitude may have an important effect in warding off and in diminishing hæmorrhages. I have not been able to find any written opinion on this point, but Dr. Theodore Williams in his book on "Aerotherapeutics" gives the results of experiments which he once made on the use of compressed air-baths in phthisis. His results appear to show that the compressed air-baths are not beneficial in cases complicated with hæmoptysis. He quotes 2 cases in which hæmoptysis came on during the bath and 4 cases in which hæmoptysis came on during the treatment. Dr. E. Hugh Snell in his book on "Compressed Air Illness" gives some instances, reported by various observers, of hæmoptysis, epistaxis, and congestions of various organs of the body occurring in men during or directly after working in diving-bells or in "caissons" (these latter are cylinders used for the foundation of piers and bridges in which two, three, or four atmospheres are compressed into one); also in tunnelling and excavating when compressed air is used to keep out water, hæmoptysis, epistaxis, and congestions have been noted. In a most interesting article contributed to the *British Medical Journal* (in 1896 I believe) Dr. Thomas Whitelaw of Edinburgh stated that he "had come to the conclusion that there is a marked affinity between a high barometer and hæmorrhages of various kinds, especially when the blood-vessels are not in a healthy condition," and he gives sufficient evidence to be impressive, quoting various cases of hæmorrhage occurring on days when the pressure of the atmosphere was unusually high.

The writings and observations of these gentlemen support my impression that the low atmospheric pressure at an altitude may be an important factor in the prevention of certain hæmorrhages from the uterus, though the exact explanation is not easy to determine. As an example of the lowered atmospheric pressure at altitudes I give the following. Assuming the barometer to stand at 30 in. at sea-level the corresponding reading at an altitude of 5,800 ft. would be about 24 in., therefore about one-fifth of the weight of the atmosphere would be removed. Roughly speaking, we must deduct 1 in. from the sea-level reading for every 1000 ft. of altitude, a very slight correction being made for the difference in temperatures.

Now, in seeking for an explanation of the lessened hæmorrhage due to any possible change in arterial tension, one finds that the careful experiments of Fraenkel, Geppert, and Paul Regnard appear to prove that there is no appreciable change in arterial tension during residence at a high altitude. Personally, I think there must be slight variations in arterial tension (probably diminutions) occurring during the first few days which may have escaped notice. How, then, can we account for such a beneficial effect on hæmorrhage being due in some measures to the diminished atmospheric pressure? I think that possibly the diminution in the weight of the superimposed column of air on the surface of the abdomen and in the lungs may act by lessening the pressure on the internal abdominal organs and large veins, thus allowing a more free flow of blood through the large veins and portal system and diminishing uterine congestion. Dr. Paul Regnard says that hepatic congestion and hæmorrhoids are improved at a high altitude, and this he attributes to improvement in digestion; perhaps diminished pressure on the abdominal organs and large veins may also account partly for this; also, indirectly owing to diminished air-pressure (on account of the smaller quantity of oxygen contained in the air of high altitudes), during the first week of residence at an altitude the pulsations of the heart and the respirations are quickened and then gradually fall to the normal and the quantity of rarefied air also which enters the lungs is increased but falls gradually to the normal after the first week. Now, books on physiology teach that the acts both of inspiration and expiration are favourable to the venous circulation, assisting the flow of the venous blood into the heart; therefore, assuming this latter to be correct, I consider that the increased respirations which always occur at high altitudes should materially assist in relieving congestions of the pelvic and abdominal organs and be of benefit in preventing uterine hæmorrhage.

This note may help to dispel from the minds of some medical men the fallacy—which is fairly common—that a high altitude is provocative of hæmorrhages. Dr. Theodore Williams with his large experience has found high altitudes especially beneficial in hæmorrhagic phthisis. Haller and others have conclusively shown by carefully handled and criticised statistics that hæmorrhages from the lungs of phthisical patients are much less common on mountains than on plains. Dr. Paul Regnard of Paris, in his fascinating book on "La Cure d'Altitude" deprecates the common idea that the lessened air-pressure produces hæmorrhages from the air-passages and he gives excellent reasons to explain the very rare hæmorrhages from the nose and ear which occasionally occur in healthy mountain climbers.

In conclusion, therefore, considering the evidence which I have brought forward of (1) Dr. Theodore Williams's experiments, (2) Dr. Snell's writings and careful collection of facts, (3) Dr. Whitelaw's observations, (4) the scarcity of hæmorrhages from the air passages both in healthy mountain climbers and of phthisical patients (as proved by various authors), in conjunction with (5) my own observations of the decrease of menorrhagia in the cases I have related, I will say that I feel justified in believing for the present (1) that a high dry climate is beneficial to certain cases of chronic uterine hæmorrhage which do not respond to ordinary treatment and that, if practicable, residence at a high altitude should be tried for as long a period as possible in cases where operation is not absolutely necessary or is inadvisable from various reasons or would prove unusually dangerous; (2) that a high altitude would probably be found useful in certain hæmorrhages and congestions other than pulmonary or uterine; and (3) that in addition to other causes which produce the effect of diminishing uterine bleeding at a high altitude the lessened air pressure is an important aid.

ADDENDUM.

CASE 4.—Since writing the above I have within the last few days seen a lady suffering from a bleeding fibroid tumour who has consulted me occasionally during the past three years. She lives in a moist, relaxing neighbourhood in a southern county, but she passed the latter part of September and the whole of October (in 1897) in a very high part of Yorkshire. During that time she had one period and she reports that she was much surprised to find that there was a very marked decrease in the amount of the flow.

This encourages me to suggest more strongly that trial should be made in such cases of the moderate elevations at our command in Great Britain, such as the available parts of the Kent chalk hills, Malvern, Hindhead, Grayshot, Buxton, Harrogate, Llandrindod Wells, and many other localities. Possibly a permanent residence at such places might materially alter the future progress of some fibroid growths in which one fears a rapidly unfavourable issue. I hope to bring forward later other notes which I am collecting on the effect of climate on menstruation.

Cavendish-place, W.

PLYMOUTH INFECTIOUS HOSPITAL.—At the meeting of the Plymouth Board of Guardians held on Oct. 4th the alleged mismanagement of the Borough Infectious Diseases Hospital was further considered and a report of the Visiting Committee was adopted which vindicated their action and protested against the strictures of the hospital sub-committee of the town council as being uncalled-for and out of place.

SOME FURTHER NOTES ON THE USE OF BROMIDE OF STRONTIUM IN EPILEPSY.

BY ANTONY ROCHE, M.R.C.P. IREL.,

PROFESSOR OF MEDICAL JURISPRUDENCE AND PUBLIC HEALTH IN THE CATHOLIC UNIVERSITY MEDICAL SCHOOL, DUBLIN; EXAMINER TO THE ROYAL UNIVERSITY OF IRELAND.

IN 1894, and again in 1896, I published some notes, with cases, on the use of the bromide of strontium in epilepsy. I have many of the cases then mentioned still under my observation, with a considerable number of others. Perhaps therefore some remarks founded on a more extended experience in the use of this bromide may be of interest to the profession. Unfortunately I cannot give the results in all my cases, as some of my patients communicated with me only by letter, and I am therefore unable to follow the course in all. In the majority of cases, however, I have been able to learn the results of the treatment.

I have not met any case in which the bromide of strontium given in the doses and method I will mention has failed to diminish the number of the attacks. In many instances there has been no return for periods extending to two, three, and even four years. Some of these cases may be considered "cured"—that is, that there will be no return of the attacks when the medicine is permanently left off. I cannot say definitely that this is so, for the reason that I always recommend the patients to continue the medicine, even though there has been no return for a long period. I do this all the more as I have not found the continued use of bromide of strontium to be followed by any bad consequences, and many of the patients have been taking 1 drachm daily without intermission for more than three years without any complaint. In this respect the strontium salt has an immense advantage over the potassium salt, which has frequently produced serious physical and mental changes when continued for long periods. Moreover, patients taking bromide of potassium frequently suffer from intense depression. Several of my patients were obliged to leave it off owing to this; in fact, several expressed their feelings by assuring me that they would rather suffer from the fits than from the depression produced by the medicine. I have not noticed this at all in those using the bromide of strontium. The potassium, too, is poisonous in large doses; the strontium is not. On this point I may quote one of the most recent authorities, Dr. Dixon Mann, who in the second edition of his excellent "Manual of Medical Jurisprudence" says that "strontium salts cannot be regarded as poisonous." I have myself given 3 drachms daily for weeks without any unpleasant symptoms. I consider, therefore, that the strontium salt excels that of potassium in being more efficient and in not being followed by dangerous consequences when it is continued over a lengthened period; and as it is not poisonous it can be given in as large a dose as may be required to control the attacks.

In my earlier cases, being influenced by the remark of Brown-Séquard that the combined bromides were more useful, I gave the bromide of strontium combined with one or more of the other bromides, but for a long time I have given that of strontium alone. I usually commence the treatment by ordering half a drachm night and morning in some vegetable tonic infusion. Should that dose not control the attacks I rapidly increase it till I have found the quantity which will suit the individual case. I direct the patient to take 30 grains at once in those cases where there is any warning of the attack and to repeat this every hour if required. By this means I have no doubt the attack has been frequently prevented. I may repeat that in my experience in order to get the full benefit of the medicine I have found it necessary to give it in large doses and to continue it for a long period. Since my first communication several members of the profession have written to me saying that in their cases they have not found the same good results. I invariably find that in these cases the dose given has been too small and consequently that my practice has not been followed. I need not say that each case requires to be studied on its own merits and any exciting or predisposing cause lessened or removed. I do not think it necessary to go any further into this question, as these notes are not upon the general medical or surgical treatment of epilepsy, but upon a special medicine, nor need I give my experience in the use of any other of the many remedies proposed. Many of these I have tried, but none have given me the same good results as I have found by the use of bromide of strontium.

I should say, however, as I have more fully explained on a former occasion, that I regard the question of diet as one of much importance. I direct my patients to restrict themselves to fish and vegetables, and I generally find no great difficulty in having my orders carried out. When the attacks diminish in number, if I am pressed to do so I allow the more easily digested meats twice or three times in the week.

I propose to return to this subject in a subsequent communication and to give details of some of my cases.

Dublin.

THE X RAYS IN DISEASES OF THE CHEST.

BY HUGH WALSHAM, M.A., M.D. CANTAB., M.R.C.P. LOND.,

ASSISTANT PHYSICIAN TO THE CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST; ASSISTANT MEDICAL OFFICER IN THE ELECTRICAL DEPARTMENT, ST. BARTHOLOMEW'S HOSPITAL; AND CLINICAL ASSISTANT TO THE HOSPITAL FOR SICK CHILDREN, GREAT ORMOND-STREET.

THE experience of the last three years has been quite sufficient to prove beyond question the usefulness of Professor Roentgen's discovery to the surgeon. I venture to think, however, that a systematic application of the rays to the diagnosis of chest disease will prove of equal value to the physician. From some cause the x rays have up to the present time not been so extensively used by the physician as they have by the surgeon, and yet they are capable of showing very distinctly pathological conditions within the chest. Unfortunately at present we have not the apparatus necessary at the City of London Hospital for Diseases of the Chest to examine patients; but what little I have been able to do thoroughly convinces me of their great value in chest disease, more especially in diseases of the lung. This, I think, will be quite apparent from an examination of the two accompanying skiagrams.

The first (Fig. 1) is from the chest of a perfectly healthy boy, aged nine years. It is seen at once that both lungs in a healthy condition are perfectly transparent to the rays from apex to base, allowing the posterior portions of the ribs to be clearly seen. Some slight shading will be seen on each side corresponding to the position of the larger bronchi, but with this exception the healthy lung is quite transparent to the rays. Whether this transparency continues with advancing life I am not quite sure, probably it does not. I think that as life advances the lung becomes somewhat less transparent, but this of course affects the whole lung equally. If we now turn to Fig. 2 we see at once that there is a great difference. The skiagram is from the chest of a boy, aged fifteen years, who came under my care when I was in charge of Dr. Harrington Sainsbury's wards during the past summer. Physical examination of the chest gave signs of a cavity at both apices. On the left side the physical signs of the cavity extended from the apex downwards to the level of the third rib. I was therefore much surprised on examining this patient with the fluorescent screen to find that the cavity was, comparatively speaking, a small one, certainly not extending so far downwards as auscultation led one to suppose. The cavity at the right apex was also smaller than one would have thought from auscultation signs. The cavities are well marked in the skiagram as two more or less round clear spaces surrounded by a dark shading. On looking at the lower parts of the lungs we see varying degrees of transparency mixed up with tracts of shading. This shading corresponds, no doubt, with consolidated lung tissue, but partly perhaps with pleural adhesions.

I have quite lately had the opportunity of taking a skiagram of a pleural effusion (serum). It shows a uniform darkening of the whole of the affected side, quite unlike the mottling of the lung in tuberculosis. This darkening stands out in marked contrast to the transparent lung tissue on the unaffected side. The diaphragm also stands lower on the affected side. I think it is very probable that with the aid of the x rays one may be able to distinguish between serum

FIG. 1.

Skiagram of normal chest.

FIG. 2.

Skiagram of chest of chronic pulmonary tuberculosis, showing cavities at both apices.

and pus, but at present I have not had an opportunity of making the observation. I think it is doubtful if the rays can enable one to distinguish between consolidation of the lower lobe of a lung and an effusion into the pleura.

Early cases of tuberculous consolidation of one or other apex display its presence by a dark shading at that apex, probably before physical signs become apparent. Enlarged bronchial glands, especially in children, are, according to Professor Bouchard and Professor Claude, easily distinguishable by the x rays, but of this I have had no experience. It does not appear likely that the x rays will be of much use in the examination of the heart. True, they will show enlargement of the organ, but of this we have abundant proof without their aid. I think it is in lung disease, especially in tubercle of the lung, that they will be found of great use both in diagnosis and prognosis. Both the accompanying skiagrams were taken by myself in the electrical department of St. Bartholomew's Hospital.

Harley-street, W.

NASAL OBSTRUCTION AND EAR AFFECTIONS.

BY MAYO COLLIER, M.S. LOND., F.R.C.S. ENG.,
SENIOR ASSISTANT SURGEON TO THE NORTH-WEST LONDON HOSPITAL.

THE admitted difficulty in treating affections of the middle ear associated with deafness, tinnitus, or chronic discharges and the unsatisfactory results which follow in many cases the usual methods of treatment are due in a large measure to an improper understanding of the relationship and bearings of nasal obstruction as a primary cause or starting-point of most aural affections. If this be so it naturally follows, seeing that the study of aural diseases and their treatment dates back to a period long before a nasal speculum was dreamt of and long before a line of literature recorded a single observation or examination of the nose, that a minute and careful study of affections of the nasal chamber is a necessary preliminary to a proper understanding of most of the commoner affections of the ear.

"Throat deafness" is a well-recognised and significant term used and understood by professional and non-professional persons alike to indicate a state of things which may be literally interpreted as Eustachian obstruction the result of catarrh and swelling of the orifice of the Eustachian tube, usually a sequela or extension of nasal catarrh and consequently of nasal obstruction. Simple obstruction of the orifice of one or both Eustachian tubes following nasal catarrh is the starting-point or antecedent of a very large percentage of the commoner affections of the ear which make themselves apparent to the patient, as deafness, noises in the head, and "running" from the ear.

It is perfectly obvious that if the antecedent condition of Eustachian obstruction and catarrh were effectively treated and its cause was removed the more lasting and grave affections of the middle ear would be prevented and their subsequent treatment rendered unnecessary. I will enlarge my proposition and go one step further. Given chronic and well-marked affections of the middle ear set up and induced by an original Eustachian catarrh and obstruction no permanent improvement can be hoped for or attained unless the *fons et origo mali*, the Eustachian obstruction, and its *causa causans*, the nasal obstruction, be removed.

I never find chronic deafness with or without noises in the head and discharges from the ear unassociated with nasal obstruction and I seldom have failed even in the most chronic and intractable cases to attain some degree of improvement either in the deafness, tinnitus, or discharge by removing the cause of the Eustachian obstruction—i.e., by ventilating the nose. To some persons it may not be apparent how an obstructed nostril can cause Eustachian obstruction and catarrh.

During inspiration the free ingress of air is requisite to fill the chest cavity on expansion of the thorax. An obstructed ingress means rarefaction of the air in the chest cavity and the passages leading thereto. During impeded nasal respiration the air in the post-nasal space is consequently of lesser density than the outside air. As a result of this the intravascular and extravascular pressures are not equilibrated (as in dry cupping) and swelling of the parts with engorgement of the vessels takes place. This vascular engorgement and consequent swelling of the orifice of the Eustachian tubes involves obstruction to the free passage or ingress of air to the tympanic cavity as well as often an extension of the catarrhal process through the Eustachian canal to the tympanic cavity.

To follow this apparently simple catarrh a step or two further, the fact of obstructing the free inlet of air to the tympanic cavity causes a serious physical disturbance. The air present in the tympanic cavity becomes shortly absorbed, causing a negative intra-tympanic pressure. This causes engorgement of the whole lining membrane of the tympanum, with possible and probable effusion into that cavity according to the degree of the vacuum. Added to this the unsupported drum-head is driven inwards by the unbalanced atmospheric pressure and deafness with or without tinnitus is the probable result. The sequence of trouble is not yet complete. The extension of the catarrhal process to the tympanic cavity may mean the introduction of certain pathogenic organisms and the consequent more acute state known as abscess of the middle ear.

The formation of pus is usually associated with pain in the ear, severe in character; high temperature with or without delirium; and sooner or later bursting of the drum-head with discharge of pus from the external ear.

The vista of possible consequences of our original Eustachian obstruction from catarrh is not yet obscured. The immediate result of an acute abscess of the middle ear is usually perforation of the drum-head with cessation of the acute symptoms and relief to the patient. Not so always with infants and children, convulsions and death are a common termination of the acute stage.

The after-stage of a tympanic abscess may be short or long. Healing of the perforation may take place, to re-open with the next cold in the nose and throat and again discharge, lapsing ultimately into a chronic ear discharge. The chronic ear discharge may, but rarely does, end in spontaneous cure. More often a chronic discharge from the ear is kept up for many years and either ends in death from abscess of the brain or septicæmia from infection of the lateral sinus, but more often in caries of the petrous bone and impairment of the general health and death from some indirect cause.

In drawing this sketch of a simple cold in the nose leading to throat and post-nasal catarrh and the consequent Eustachian obstruction I have not exaggerated in the smallest degree. My object is to impress upon those who have the care and the treatment of these cases that simple and appropriate treatment applied to the original catarrh and obstruction would prevent and save this long sequence of aural troubles. An astringent and antiseptic wash to the nose would restore nasal respiration, relieve Eustachian congestion and obstruction, and permit a free ingress of air to the tympanic cavity. In chronic cases of deafness with tinnitus and discharge due originally to Eustachian catarrh and obstruction the same treatment applies, and is absolutely essential and a *sine quâ non* of any permanent improvement and success in these cases. A wash followed by the galvano-cautery or other methods of ventilating the nose is the first step in treating these chronic aural affections. Then and then only will the Politzer bag and the Eustachian catheter avail anything.

Harley-street, W.

GIFT OF A WATER-SUPPLY.—Mr. D. R. Scratton on Oct. 6th presented a water-supply to the village of East Ogwell, near Newton Abbot, Devon. The cost of the gift is about £3000. Mrs. Scratton turned on the water with a golden key presented by the villagers. The day was observed as a general holiday and Mr. Scratton was presented with an illuminated address of thanks.

CLINICAL SOCIETY OF MANCHESTER.—At the annual meeting of this society, held on Oct. 4th, the following office-bearers were elected for the session 1898–99:—President: Dr. A. Hill Griffith. Vice-presidents: Dr. E. S. Reynolds and Mr. E. Roberts. Treasurer: Dr. C. H. Braddon. Secretary: Dr. T. A. Helme. Librarian: Mr. J. W. Smith. Auditors: Mr. C. F. H. Kitchen and Dr. T. Porter. Committee: Dr. Alfred Brown, Dr. R. Crean, Dr. J. Daniel, Dr. J. W. Hamill, Dr. T. Harris, Dr. J. Holmes, Dr. T. N. Kelynack, Dr. M. P. Ledward, Mr. H. Lund, Mr. C. T. B. Maisey, Dr. E. T. Milner, Dr. R. T. Parkinson, Mr. J. E. Platt, Mr. J. Rust, and Mr. F. H. Westmacott.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

HOSPITAL FOR SICK CHILDREN, GREAT ORMOND-STREET.

A CASE OF HYDATID CYST OF THE LUNG.

(Under the care of Dr. F. G. PENROSE and Mr. T. H. KELLOCK.)

HYDATID of the lung, though fairly frequent in some parts of the world, is distinctly rare in this country. The diagnosis is often far from easy, though an examination of the expectoration, should there be any, may in some cases prove of value. The prognosis in cases not operated on is very grave and the mortality has been given as two out of every three. In patients on whom an operation has been performed the death-rate is much less. Lopez gives only 5 deaths in 32 operations and Reclus[1] gives it as 2 cases out of 11. There can be no doubt that incision of the lung is the correct operation to perform and it is seldom accompanied by hæmorrhage of any moment. The alternative method, aspiration, was formerly employed to some extent, but in no small number of the cases the cyst has burst into the lungs as a result of the aspiration before much fluid had drained away by the cannula, so that the patient has been practically drowned in the hydatid fluid.

A thin, anæmic girl, aged five years, was admitted to the Hospital for Sick Children, Great Ormond-street, on March 21st, 1898, complaining of cough and pain in the left side of the chest. There was a history of phthisis in the mother's family. The patient was born in Melbourne and was brought to this country when she was three years old; she was breast-fed for two months and was then given cow's milk. She had always been delicate, suffering from colds and cough; when she was one year old she had an attack of measles, when two years old whooping-cough, when three years old meningitis (?), and when she was four years old she attended a hospital as an out-patient on account of her chest. Seven weeks before admission she had influenza, since which the mother had noticed that she was more pale, coughed a good deal, and complained of pains in the left side, right shoulder, and legs. A month later the mother's account was that a medical man had told her that the left lung was solid, but three weeks afterwards — i.e., one week before admission — he said that there was fluid in the left side of the chest. On admission the child was in no distress, but complained of occasional pain in the left side. The temperature was 99·8° F. and the respirations were 30. There was no obvious difference in the shape or in the measurements of the two sides of the chest. The respiratory movements were better at the lower part of the right lung than of the left. At the lower part of the left lung there was an area of absolute dulness, the upper limit beginning at the sixth rib in the nipple line in front and sloping upwards to the fifth rib in the axilla; crossing the scapula at this level it turned suddenly downwards and reached nearly to the base of the lung two and a half fingers' breadth from the vertebral column. There was impairment of resonance below the fourth rib in front, hyper-resonance in the first two intercostal spaces, and a band of resonance at the extreme base below the absolute dulness. Tactile vocal fremitus was feeble everywhere, being absent over the dull area. The breath and voice sounds were weak over the impaired area, the former being absent and the latter feeble over the dull area. There was no ægophony or bronchial breathing. No fluid thrill was obtained; the thoraco-parietal glands were not felt. The heart was displaced, the dulness extending two and a half fingers' breadth to the right of the sternum; the sounds were abnormally conducted over the right side of the chest. There was a little impairment of resonance at the base of the right lung. Both the liver and spleen could be felt below the costal margin, but nothing else abnormal was detected in the abdomen. An exploring needle inserted into the dull area withdrew hydatid fluid. On the same evening, chloroform having been administered, a curved incision was made over the sixth and seventh ribs in the posterior axillary line; about 1½ in. of each of them were removed and the pleura was freely opened. Adhesions were found posteriorly and below the opening, but above and in front there were none. The presenting lung tissue was pale in colour and many vessels were visible on its surface. A few stitches having been inserted to unite the visceral and parietal pleuræ a trocar and cannula were introduced into the lung and clear fluid escaped. The opening was then enlarged and it was found to lead into the adventitious cyst which was of about the size of an orange and full of hydatid fluid, which, together with the true cyst which was found to be collapsed and empty, was removed. The edges of the opening were sutured to the parietes, the rest of the wound in the chest wall was closed by sutures at either end, the cavity was packed with cyanide gauze and a dressing was applied. It was noticed that the walls of the adventitious cyst in the lung showed no tendency to collapse when its contents had been removed. There was no hæmorrhage of any severity at any stage of the operation, which the patient bore fairly well. For three days after the operation retention of urine was a troublesome feature and had to be relieved repeatedly by the application of fomentations to the abdomen. The cavity showed no tendency to contract. There was very little discharge from it, but on March 25th it was noticed on dressing the wound that when the plug of gauze was removed some air and mucus came from the opening. On the 26th and 27th the child on three occasions passed about half an ounce of quite clear fluid from the rectum independently of defecation. Chemically this was identical with hydatid fluid, but no hooklets could be found in it. Rectal examination revealed nothing abnormal. On the 27th some air and mucus were still coming from the wound. The heart had returned somewhat towards the left, although there was no apparent alteration in the size of the cavity. On the 28th and 29th the patient passed a good deal of pus with the motions. The abdomen was quite supple and not tender, and she seemed to be altogether brighter and better. The liver was felt about two fingers' breadth below the costal margin, its surface being quite regular. After the 30th there was no more fluid or pus from the rectum, the patient gradually improved, and the cavity in the chest began to contract; there was a little air coming and going through the wound for a short time. On April 9th she developed measles, but this apparently in no way interfered with her recovery and when she left the hospital on the 26th the wound in the side had healed; there was a little falling in of that side of the chest as well as some straightening of the spine in the situation of the fifth, sixth, and seventh dorsal vertebræ. The liver was still somewhat enlarged, but no definite tumour could be felt in it.

Remarks by Dr. PENROSE.—I think that the most interesting point in this case is the fact of a discharge *per anum*, first of a clear fluid evidently hydatid on March 26th and 27th followed by pus in the fæces on the 28th and 29th. The most probable explanation seems to be that a second cyst ruptured somewhere into the lower part of the intestinal tract and subsequently sloughed away. It is well known that hydatid cysts are frequently multiple. Up to the present there is no evidence of the presence of any more, though there is no obvious cause for the persistent enlargement of the liver.

Remarks by Mr. KELLOCK.—The comparative rarity of the operation for hydatid cyst of the lung in this country makes me think that this case is worth recording. The operation itself was rendered easy by the fact of the cyst lying so near the surface of the lung that only a very thin layer of the latter had to be divided. The conditions found when this stage of the operation was reached had been rendered rather confusing by the puncture of the cyst; the adventitious cyst formed of condensed lung tissue was found to be full of fluid, the hydatid itself being collapsed and separate from the wall of the former. So little of the lung substance having been incised at the operation it was rather difficult to account for the occurrence and persistence of the aerial fistula. A noticeable feature in the after treatment was the

[1] La Presse Médicale, Oct. 19th, 1895.

length of time which the cavity in the lung took to close; it would appear that the wall of the adventitious cyst had become so rigid that it was able to resist for some time the expansile force of the surrounding lung tissue.

TEDDINGTON COTTAGE HOSPITAL.

A CASE OF CÆSAREAN SECTION; RECOVERY.

(Under the care of Mr. T. B. LUSCOMBE.)

THE case reported below is remarkable in that the unusual expedient was adopted of removing the head from the uterus by abdominal section after the rest of the fœtus had been delivered by the vagina and decapitation had been performed. It can be but rarely that such a method is justifiable, for as a rule if the pelvis and shoulders of the child have succeeded in passing through the mother's pelvis it is easy for the head to follow, unless by undue traction the aftercoming head has become extended. The result of the operation seems to have been very satisfactory.

On March 26th Mr. Luscombe was asked by Dr. Theodore Günther to see a case of protracted and difficult labour. The patient was thirty-one years of age and had had three previous confinements. The first labour was said to have been "a very bad one and the child had to be taken away in pieces." The two subsequent labours appear to have been uneventful, but she said that the children were small. The patient was anæmic and had a troublesome cough. Labour commenced on the evening of March 24th; there was a breech presentation, the child lying in the left dorso-anterior position. On the next day the membranes ruptured and the os uteri was fully dilated, but very little progress had been made. Mr. Hermann Günther also saw the patient. The fœtal heart sounds were distinctly heard. The pelvis was measured and was found to be 3 inches in the conjugate diameter. On the morning of the 26th the fœtus was a little lower, the pains were not strong, and some meconium was found in the vagina. As the patient was getting tired it was decided to bring down the legs with the view of accelerating matters and chloroform was given. The left leg was brought down and then with more difficulty the right leg. The body was now delivered, the shoulders giving much more trouble than the legs. To deliver the after-coming head traction on the body was of no avail. Jaw traction was tried with a like result. Then forceps were applied, but with a negative result. As the head did not seem to be abnormally large when grasped with the forceps it was thought that if decapitation were performed the manipulations with the forceps would be easier as more room and possibly a more advantageous grip would be obtained. This was done, but repeated efforts failed to extract the head. It was at this stage that Mr. Luscombe saw the patient at about 3 P.M. She was somewhat exhausted, the pulse was fairly good, and feeble pains occurred every few minutes. The uterus was in a condition of more or less tonic contraction and the chin of the fœtus had rotated on to the pubes. The neck was gripped by the os uteri, so it was not possible to make much examination internally. Above the pubes could be seen a swelling of about the size of a small orange—the outline of the distended bladder; behind and slightly above this the hard fœtal head and the placenta could easily be felt, and still higher there was a large semi-fluctuating mass filling the upper part of the uterus. This was afterwards found to be blood-clot. An attempt was now made to empty the bladder, but the chin was so firmly fixed upon the pubes that a catheter could not be passed into the bladder.

The surroundings of the patient were not suitable for any further operative measures, so it was decided to remove her to the Teddington Cottage Hospital with the object of placing her under an anæsthetic and if necessary to perforate and crush the head or perform Cæsarean section. At about 6 P.M. the A.C.E. mixture was administered. Mr. Luscombe was then able by external manipulation to push the head just far enough upwards to allow of a catheter being passed and about a pint of blood-stained urine was obtained. After further consultation with his colleagues who had not seen the case before admission it was decided that to alter the position of the head, without using unjustifiable force, would be practically impossible, and that the risk of abdominal section would be less than perforation and cephalotripsy. This opinion was probably strengthened by the good recovery in this hospital of the patient whose case was reported in THE LANCET of April 16th. After the usual cleansing of the skin, &c., Mr. Luscombe opened the abdomen along the linea alba. There was scarcely any hæmorrhage. The uterus was then opened by a corresponding incision, but the tissue was so soft and friable that it was not easy to avoid tearing it. As soon as possible the skull was grasped on either side over the parietal eminences with the fingers of each hand. It required some force to dislodge it and it slipped through the hands of the operator out of the abdominal incision. In the sudden escape of the head a rent occurred in the lower part of the uterus, about 2 in. long, to the left of, and at a right angle with, the previous incision. The placenta (which was not adherent) and a mass of blood-clot lying above it were then removed. There was moderate hæmorrhage for about a minute or two and the blood was allowed to escape through the vagina. The cavity of the uterus was irrigated with hot water until the bleeding had practically ceased and dusted with iodoform powder. The incision and the rent made by the sudden escape of the head were sewn up with silkworm gut sutures ½ in. or less apart; a few blood-clots and some blood-stained fluid were sponged out of the peritoneal cavity and the abdominal incision was closed with deep silkworm-gut and superficial horsehair sutures. In the lower part of the wound a piece of alembroth gauze was left for drainage and the dressing was completed with iodoform, alembroth wool, and a broad flannel bandage. The patient was then removed to bed. The fœtus was a male and on examining the head it was found to be larger than normal and well ossified; the fontanelles were obliterated, as the edge of one parietal bone overlapped the other to the extent of nearly ½ in., this being probably the result of pressure exerted by the forceps. The patient passed a quiet night, had no pain, but slept very little. She drank several teaspoonfuls of water and brandy (½ oz.) mixed with water. On the 27th the catheter was passed, the urine withdrawn being dark and thick. The temperature was 98° F. and the pulse was 100 and feeble. During the day she took chicken jelly (2 oz.) and brandy (1 oz.) mixed with water. In the evening she was restless and complained of abdominal pain. The gauze was removed from the lower part of the wound without disturbing the dressings. There was a very slight serous discharge. The catheter was passed and the urine was found to be much clearer. The temperature was 98·2° and the pulse was 96 and weak. The subsequent progress of the case has no special interest. The cough, without sufficient chest trouble to account for it, was the chief difficulty for the first few days, whilst later obstinate constipation supervened. The temperature and the pulse-rate were highest on the sixth day after the operation, being 101° and 104 per minute respectively. The patient did not seem to be ill on that day, and the rise in the temperature from 99° in the morning was presumably due to constipation, as the temperature did not again rise above 99°. The patient left the hospital recovered at the end of May.

Remarks by Mr. LUSCOMBE.—The result of this operation, following so soon after the other above referred to, and the present condition of both the patients, I venture to think prove that the risks to the patients from abdominal section were less than would have been incurred had any other method of delivery been resorted to and the treatment had, moreover, the advantage of avoiding the danger of lacerating the uterine or vaginal mucous membrane.

PAUPER CHILDREN IN PLYMOUTH.—At the meeting of the Plymouth Board of Guardians held on Oct. 4th it was decided to adopt the "scattered home system" for the pauper children in the borough. The details of the scheme have yet to be settled, but doubtless it will be on lines similar to those adopted by the Sheffield board.

FATAL CARRIAGE ACCIDENT.—Much regret is felt throughout North Devon at the death of Mrs. Joseph Harper, which occurred on Oct. 7th. Mrs. Harper was the wife of Mr. Joseph Harper, L.R.C.P. Lond., M.R.C.S. Eng., J.P., of Barnstaple, and she sustained an injury to the brain as the result of a carriage accident mentioned in THE LANCET of Oct. 1st, p. 891.

Medical Societies.

MEDICAL SOCIETY OF LONDON.

Annual Meeting.—President's Address.—Study of Dyspepsia.

THE annual general meeting of this society was held on Oct. 10th, the retiring President, Dr. SANSOM, being in the chair.

The balance-sheet was presented and showed that after the redemption of debentures to the amount of £200 an increased balance was present at the bank. Votes of thanks were passed to the retiring officers, and Dr. HECTOR MACKENZIE proposed, and Dr. CALVERT seconded, a very hearty vote of thanks to Dr. Sansom, which was carried by acclamation. Dr. SANSOM replied, and inducted his successor, Mr. Edmund Owen, into the chair.

An ordinary meeting was subsequently held, Mr. OWEN being in the chair.

The PRESIDENT delivered an inaugural address. He urged the Fellows to make more use of the library, which, among many other treasures contained fifteen leather-bound manuscript volumes, which formed the commonplace book of the Rev. John Ward, M.A., vicar and doctor of Stratford-on-Avon from 1662 to 1681. He studied practical anatomy at the "Barber Chyrurgeons' Hall" in Monkwell-street under Dr. Scarborough, the friend of Harvey, who gave demonstrations there on the bodies of persons executed for crime. Taking up his work in Stratford-on-Avon in the forty-sixth year after Shakespeare's death he must, both as vicar and doctor, have been told of many facts concerning the Bard by those who had been personally acquainted with him. What little he said in these memorandum books had been already seized upon by Halliwell Phillipps in his "Life of Shakespeare." One of the extracts is of undoubted biographical value: "I have heard that Mr. Shakspear was a natural wit without any art at all; hee frequented the plays all his younger time, but in his elder days livd at Stratford and supplied the stage with two plays every year, and for that had an allowance so large that hee spent at the rate of £1000 a year." And again: "Shakspear, Drayton, and Ben Jhonson had a merry meeting, and itt seems drank too hard, for Shakspear died of a feavour there contracted." In those days it was customary to call all obscure diseases "feavours," just as they are now called "influenza" or "neuroses." In this commonplace book Ward records that some man at Cambridge cured ague by injections into the veins "just as Mr. Wren did into the veins of a dog." He was not satisfied with Oxford as a school, leaving it for London for his clinical education, and quotes Sydenham to the effect that "one had as good send a man to Oxford to learn shoemaking as practising physic." Possibly he thought the teaching too speculative, for he wrote: "A schollar att Oxford applying himself to an elderly physitian of that university to know whether he was in a consumption or not, hee askt the schollar whether hee spitt blood or not? He answered negatively. 'Then,' said he, ''tis but a physick cough and I will warrant you from a consumption'; but three months after his body went to the wormes." He took a lively interest in practical pharmacy and said it would be an excellent thing for physicians to make up all their physic in troches. He insisted on the need of fresh air for children, advised the scraping of chronic ulcers, and gave a graphic account of subcutaneous tenotomy by a mountebank who "cutt wry necks by making an orifice with his launcet and lifting up the tendon for fear of the jugular veins, then by putting in his incision knife and cutting them upwards they gave a great snapp when cut. ..... When he hath cut it he bends the child's head the other way and so by constant bending it becomes straight." Subcutaneous tenotomy therefore was not altogether a modern invention. It had now had its day and was rapidly giving place to a less speculative treatment. Constant reference was made in Ward's diary to small-pox and its ravages, but in view of the "tremendous experiment" which it had just pleased the Government to make with regard to this loathsome disease Mr. Owen said he had not the heart to refer further to it. Government had indeed sown the wind, but when the reaping of the whirlwind came the plentiful harvest would, unfortunately, be composed of the innocent, helpless, and ignorant—the very people whom a civilised Government was most bound to protect. In concluding Mr. Owen said he hoped that the suggestion made in his oration eighteen months ago would be carried out and that the last meeting should be an unreported "surgical confessional evening" at which mistakes and failures only should be brought before the society.

Dr. ALLCHIN read a paper on Some Considerations Preliminary to the Study of Dyspepsia. He first of all referred to the need for a more careful nomenclature. He reminded the society that digestion took place in the whole course of the alimentary canal and not in the stomach only and that the term "indigestion" or its synonym "dyspepsia" should not be restricted to disorders of gastric digestion only. Schlatter's case of total excision of the stomach showed that it was not an essential organ and that the importance of the *rôle* of hydrochloric acid had been exaggerated. The immediate causes of indigestion might be grouped as follows:—1. Errors in quantity or character of the food. 2. Diseases of the digestive organs, either (*a*) structural, (*b*) due to impaired nervous control, or (*c*) abnormal blood or lymph-supply. 3. Improper bacterial action. 4. Defective absorption. 5. Abnormal intestinal excretory processes. After enumerating the "protean symptoms" of dyspepsia Dr. Allchin pointed out that one of the chief difficulties in studying the subject was that many totally different conditions gave rise to similar symptoms. He contended that an attempt must be made to base diagnosis on knowledge of the anatomy and physiology of the alimentary canal. No single symptom was diagnostic, but the association of symptoms was very significant. Dr. Allchin considered the use of the term "functional" dyspepsia as mischievous, believing there was always correlated structural defect. He thought the bearing of his remarks would be best appreciated by considering one conventional variety of indigestion, the so-called "nervous dyspepsia," about which there was such divergence of teaching in standard text-books. Under Dr. Allchin's scheme nervous dyspepsia would be defined as that form of disturbed digestion due to impaired innervation of either mouth, stomach, intestines, or associated glands, leading to imperfect changes in any or all of the different food constituents. The disordered nervous control might be due to: (*a*) disturbances of central origin, such as emotional states, anxiety, hysteria, neurasthenia, &c., or gross structural lesions such as cerebral tumour, meningitis, locomotor ataxy, &c.; (*b*) disturbances of reflex origin, as from the kidneys or ovaries; and (*c*) peripheral irritation of the nerves of the alimentary canal. The term "nervous dyspepsia," therefore, would not denote a group of symptoms, but indigestion primarily of nervous origin. It would be expected that the symptoms would be such as are directly traceable to disturbed motility and secretion, and such actually is the case in the vomiting due to fright or anxiety, the obstinate eructations of the hysteric, the vomiting from cerebral tumour or in the crises of locomotor ataxy, and in increased rectal peristalsis from fright. Flatulence is not a marked symptom and is a secondary result of the improper digestion of amylaceous constituents. The remote nervous symptoms, such as headache, vertigo, drowsiness, &c., were due to the formation and absorption of toxic substances. Dr. Allchin admitted that even by grouping symptoms the ascertainment of the cause was a matter of extreme difficulty, but he felt convinced that before any rational treatment could be propounded with any view of success these difficulties must be overcome.—Dr. MAGUIRE thought that it was instructive and of practical value to consider the subject from an embryological standpoint. It was recognised in neurology that the function latest developed was the first to disappear under conditions of strain and the first to reappear when health was re-established. In the embryo the first food was the albumin in the yelk sac, which required no digestion. After birth the child took milk, the proteid constituent, casein only requiring digestion, as the lactose and finely emulsified fat were readily absorbed. It was not till the age of six months that carbohydrates were digested, and power to digest fat in the mass was not developed till much later. In dyspepsia fat digestion, the last acquired, became impaired first, then carbohydrate digestion became disordered, but the power of digesting proteid in some form persisted. In cases of fat and carbohydrate dyspepsia great benefit was often obtained by putting patients for a time on an exclusively lean meat diet. Afterwards carbohydrate digestion might be aided by giving some active preparation of diastase, and he thought that acids such as lemon

juice aided the digestion of fat.—Dr. ALLCHIN, in reply, thought that more evidence was required in support of Dr. Maguire's very taking theories. He was not convinced that distaste for fat was lost before inability to digest starchy food showed itself. In some cases he thought that impairment of digestion of proteids occurred first.

OBSTETRICAL SOCIETY OF LONDON.

Puerperal Septicæmia treated by Anti-streptococcic Serum.—Early Ectopic Gestation complicated by Fibro-myoma of the Uterus.

A MEETING of this society was held on Oct. 5th, the President, Dr. C. J. CULLINGWORTH, being in the chair.

Dr. J. WALTERS and Mr. A. R. WALTERS communicated a paper on a case of Puerperal Septicæmia treated by Anti-streptococcic Serum. The patient, a multipara, aged thirty-four years, gave birth to a child in April, 1895. She again became pregnant in March, 1897. Severe flooding set in in May, followed by irregular hæmorrhages and foul discharge which lasted till April, 1897. The uterus was dilated and freely curetted on May 9th with strict antiseptic precautions and it was afterwards swabbed with carbolic lotion and with iodine liniment. On the 10th the patient was comfortable and the temperature was normal. During the next five days there was slight fever and the remains of a macerated fœtus were passed. On the 16th the patient had intense headache and an urticarial rash, and the discharge was more offensive. The temperature varied from 98·5° to 102·5°F., and the pulse was 100. The uterus was washed out with perchloride of mercury (1 in 2000). At 10.30 P.M. the patient had a severe rigor and the temperature rose to 104·5° and the pulse to 120. On the 17th the tongue was dry, the temperature ranged from 101° to 103°, and the pulse was 120; 10 c.c. of anti-streptococcic serum were injected. At 8.30 P.M. the patient was bright and cheerful and the skin was moist. The temperature was 98° and the pulse was 80. On the 18th the headache returned and the temperature rose to 100·5° and the pulse to 100. A second injection of 10 c.c. of serum was given and the temperature fell to 98° and the pulse to 75. The second injection was followed by very great depression which lasted for several days; there was also transient albuminuria. The patient recovered and there seemed no reasonable doubt that the recovery was entirely attributable to the use of the serum.—Dr. AMAND ROUTH said that it was difficult to be sure in any given case when several methods had been adopted that the successful ending was due to one of the methods only. Out of five or six cases treated by himself one had recovered from the septicæmia as a result of the anti-streptococcic serum alone. It was not wise to inject so potent an agent unless it had been previously ascertained that the infection was due to streptococci, and the ordinary treatment, especially removal of all débris, should not be omitted.—Dr. EDEN also thought it very important to ascertain the nature of the infection before using the serum. In Dr. Haultain's series a different form of infection was present in each case; in one the Löffler bacillus was present and the case was successfully treated by the diphtheria antitoxin.—Dr. G. H. D. ROBINSON agreed that it would be interesting to ascertain what microbe was producing the disease; but he feared that this would be practically impossible. He had investigated a number of cases bacteriologically but the results had been unreliable. Out of 7 cases which he had treated with the serum 5 of the patients had died, the treatment apparently having had no effect. 2 of the patients recovered; in one of these the only effect was that the patient seemed to sleep better afterwards; in the other patient, who had on the eleventh day a temperature of 104° and a pulse of 120 and membranous vaginitis, the injections of the serum were followed at once by a fall of temperature and the patient rapidly convalesced.—Dr. MCCANN said it was probable that more than one microbe was the cause of puerperal septicæmia. He suggested that the serum should also be used as a preventive in cases where sepsis would be likely to follow.—The PRESIDENT said that he did not quite agree with the opinion which had been expressed that the serum ought not to be administered until it had been definitely ascertained that the offending microbe in the cases under observation was the streptococcus. He thought, as streptococci were usually present, the serum ought to be given without waiting for bacteriological investigation. The safe rule of practice was to explore the uterus digitally with the finger under an anæsthetic (decomposing débris should be removed by the finger and reliance must not be placed upon the douche) and then to administer the serum without delay.—Dr. JOHN PHILLIPS had administered anti-streptococcic serum in several cases, but in only one was he certain that the patient's recovery could be attributed to its use. The patient had been for many weeks suffering from acute septicæmia. Curettage had failed to produce benefit. Twenty injections were given in the course of twelve weeks. The temperature, which was very high, was always lowered, the delirium ceased, and the skin acted, the effect lasting several hours. In this case repeated examinations of the discharges for streptococci gave a negative result.—Dr. TATE had seen several cases treated by the serum and in some of them the results appeared to be good. In one case the first injections were followed by improvement, but afterwards failed to give relief; possibly this case was one of mixed infection.—Dr. J. WALTERS replied.

The PRESIDENT read a paper on a case of Early Ectopic Gestation (? tubo-uterine) complicated by Fibro-myoma of the Uterus. The patient, aged thirty-three years, was admitted into St. Thomas's Hospital on Sept. 4th, 1897, said to be suffering from retroversion of the gravid uterus. Attempts had been made to reduce the supposed displacement but without success. The patient had had one child nineteen years before and had last menstruated during the last week of April, 1897. Five weeks later she fell down some steps and had pain in the back and in the abdomen. This passed off, but returned three weeks later and continued gradually increasing in severity. A fortnight before admission clots were passed and since then there had been an offensive discharge and for the last five weeks sickness every evening. Further attempts were made to reduce the supposed displacement. On Oct. 5th the patient was examined under ether and the diagnosis was made that the uterus was enlarged by fibroids and that there was also a pelvic hæmatocele due to an arrested tubal gestation. On the 21st an operation was performed and the fibroid uterus and gestation sac were removed. After careful examination of the parts removed it was concluded that the gestation was originally tubo-uterine and that the fœtus had been extruded either into a diverticulum of the tube (which was more probable) or into the abdominal cavity.—Mr. ALBAN DORAN observed that in pure tubal pregnancy the fœtus and placenta have been found to be in separate dilatations (Chaput's case). Hence in Dr. Cullingworth's case the fœtus possibly lay in a true diverticulum of the tube. Rupture had occurred early, but the membranes had partly protruded to stop up the leak and the fœtus had slipped into the protruding part, the placenta remaining behind.—Dr. AMAND ROUTH thought that Mr. Doran's explanation was probably correct.—Dr. ARTHUR GILES referred to a case which he had published in the Transactions of the society last year which also simulated retroversion of the gravid uterus.—The PRESIDENT, in his reply, said that this was the first case which had occurred in his practice in which a tubal pregnancy had involved the intra-mural portion of the tube.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.—The inaugural meeting of this society for the session 1898–99 was held on Oct. 6th, Mr. T. D. Pryce, President, being in the chair. An address was delivered by Mr. William H. Bennett, surgeon to St. George's Hospital, on Varix, its Causes and Treatment, with especial reference to Thrombosis, which appears in full at p. 973. The President, at the conclusion of the address, called on Mr. Anderson to propose a vote of thanks to Mr. Bennett for his admirable address, and this was seconded by Dr. Handford and carried with much enthusiasm.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.—This society held the first meeting of its seventeenth session on Oct. 7th at the West London Hospital. The President, Dr. S. D. Clippingdale, delivered the inaugural presidential address, choosing for his subject Some Consideration of the Life and Work of a General Practitioner. This address will be published in a future issue. A vote of thanks to the President for his address, proposed by Mr. F. Lawrence and seconded by Dr. H. P. Potter, was carried by acclamation.

Reviews and Notices of Books.

Outlines of Practical Surgery. By WALTER G. SPENCER, M.B., M.S. Lond., F.R.C.S. Eng., surgeon to the Westminster Hospital. London: Baillière, Tindall, and Cox. 1898. Demy 8vo. Pp. x. and 694. Price 12*s.* 6*d.* net.

NUMEROUS are the blessings which flow from the recent great progress of the medical sciences, but these beneficial results are accompanied by one disadvantage, and that is a great increase in the size of the modern treatises dealing with any one of these sciences. Pathology has made enormous strides during the last few decades, and its youngest and most important offspring, bacteriology, has only recently come into existence. Facts have accumulated to such an extent and so many theories have been evoked to explain them that it is not possible to include within a volume of reasonable size all the facts and all the theories with which the examiners expect a student to be acquainted. The difficulty of dealing satisfactorily with pathology in a treatise on surgery has induced the author of the volume before us to exclude from its pages the details of pathology and bacteriology; for these he refers the student to special treatises on these subjects, while he treats in this book only of those portions of surgery which are distinctly practical in nature. We must confess that there is much to be said in favour of this view, and a perusal of Mr. Spencer's volume goes far to make us agree with him on this point. Of course there are obvious advantages in having in one book all the pathology as well as all the surgery which the student will require, but if both subjects are to be treated thoroughly the bulk of the volume will militate greatly against its value. It is also true that the writing of a book limited to practical surgery is not without great difficulties. In mentioning the etiology of any morbid condition it is impossible to avoid reference to its pathology, and the same remark applies equally to the treatment, and therefore a writer would have to make a careful distinction between those facts of pathology which must be brought forward and those which may safely be left in special pathological treatises. This difficult task has been excellently performed by Mr. Spencer, and we have in several parts of the volume noticed with admiration the skilful descriptions with which we have met. To sum up the whole work we may say that it gives a good general account of modern surgery from the practical point of view; no space is wasted by descriptions of discarded methods of procedure, but the surgical treatment of the present day is presented to the student. Occasionally, perhaps, we cannot help thinking that the descriptions of some of the operations might have been fuller, though it is difficult to put a finger on any individual passage.

Before proceeding to a more detailed discussion of some of the points noticed during the reading of the book we should mention the illustrations. These are numerous, more than 100 in number, and they are, we should imagine, all original. They are in white on a black background and are certainly striking; in some instances the method brings out small points which would not be so clearly visible in an ordinary engraving and in all the object of the illustration can be readily seen. It may perhaps be considered captious criticism to say that the general effect is not always artistically pleasing, but this is not of great importance so long as the illustration conveys its meaning to the reader.

On page 3 we are told that gangrene of fingers has been caused by the use of even a weak solution of carbolic acid, owing to the power possessed by this drug of contracting the superficial blood-vessels. Of course it depends somewhat on what is meant by a "weak" solution of carbolic acid, but the statement surely is liable to give a wrong idea of the danger arising from the use of this antiseptic. In an account of the knots employed in surgery the author calls the reef knot the "simple knot," by no means a good name for it, and the "surgeon's knot" described does not need the third loop mentioned, for it adds nothing to its security or strength. It might well have been pointed out in the section devoted to sutures that suppuration along a suture is in general attributable either to the suture not having been completely sterilised or to the skin through which it was passed having contained pyogenic micro-organisms. We must protest against the spelling "leukocyte" which is employed throughout the work; there can be no justification for transliterating in the same word one *kappa* by a *k* and another by a *c*.

The section on General Anæsthesia is very good indeed. It would have been well, however, if the proportions of the ingredients in the A.C.E. mixture had been given. In the description of the methods of inducing local anæsthesia no mention is made of freezing with subsequent injection of a solution of cocaine; this is by far the most convenient method and has been employed even for abdominal sections.

In the account of "wound diphtheria" Mr. Spencer relates an interesting case which we do not remember to have seen before: "A house surgeon was doing a circumcision when his nose began to bleed and a drop of blood fell on the wound. The next day the child had a thick membrane covering the wound, and the house surgeon was ill with a severe attack of naso-pharyngeal diphtheria." It would be of interest to know if the diphtheria bacillus was found in the membrane which formed on the wound. With reference to infectious new growths it is not long ago that text-books on surgery laid it down as a rule almost without exception that carcinomata always affected the lymphatic glands and that sarcomata did not. Mr. Spencer expresses very clearly the general present opinion when he says that the milder forms of both carcinomata and sarcomata do not involve the lymphatic glands, but that in the severer cases of both forms of growth the lymphatic glands are nearly always affected. The author, in describing the lymphatics of the breast, mentions that it is rare for the glands of the anterior mediastinum to be involved in the early stages, and he appears to attribute it to there being only a few lymphatic vessels running with the perforating intercostal arteries, but the most probable reason of the rarity of the early involvement of the mediastinal glands is that nearly all carcinomata of the breast appear primarily in the outer segment of the organ and the lymphatic vessels from this part all drain into the axillary glands. A useful account is given of the treatment of retention of milk by "expression." This method is much too little known, for it is of great value and its employment would probably prevent many abscesses of the breast. The author, though advocating incision of a new growth of the breast before excision, does not explain that this is especially of value in diagnosing scirrhus from chronic abscess; a student is much more likely to remember and follow a rule of practice if he is told the reason for it.

The following sentence appears on page 334: "It is evident that since operations for the cure of hernia have come into practice the number of strangulation cases, and therefore the mortality from hernia, has been much diminished." We are not aware of any statistics which support this statement though it is by no means improbable. We should be interested to learn on what it is founded.

Is it not somewhat overstating the case to say that "an artificial anus in the small intestine is more hopeless than immediate suture"? The danger from an artificial anus in the small intestine depends entirely on its position in the bowel; if it is high up in the jejunum the wasting is great and death is almost inevitable, but low down in the ileum the

patient may be hardly the worse for it. Occasionally the phraseology employed is a little unhappy and the following may be quoted as a specimen: "The general causation of stone in the kidney is attributed to the uric acid diathesis, or to the water in districts where stone in the bladder is common."

It is surely a mistake to omit from the complications of gonorrhœa the most important of all—namely, gonorrhœal conjunctivitis. Though the surgery of the eye is not included in the compass of the volume, yet this severe complication should at least have been mentioned.

In quoting a few instances where we have not been quite able to agree with the views expressed by the author we have not intended to detract in the least from what we have said above as to the general value of the book. It would be best read, we think, in addition to, rather than in place of, other works, and its perusal should prove of benefit to every student of surgery.

Text-Book of Histology, including the Microscopic Technic. By Dr. PHILIP STÖHR, Professor of Anatomy at Würzburg. Second American from seventh German edition. Translated by Dr. EMMA L. BILLSTEIN, Director of the Laboratories of Histology and Embryology, Women's Medical College of Pennsylvania. Edited with additions by Dr. ALFRED SCHAPER, Demonstrator of Histology, Harvard Medical School, Boston. With 292 Illustrations. London: J. and A. Churchill. 1898. Pp. 424. Price 14*s*.

Dr. STÖHR's treatise is one of the recognised text-books on histology for the German medical student. We learn from the preface that it has been translated into Italian, French, and Russian, and those who speak English are indebted to Dr. Billstein for having made a very readable translation, and to Dr. Schaper for adding considerably to the value of the work by the introduction of a chapter on the Placenta, and for sundry other improvements. It cannot, of course, be compared with Kölliker's monumental treatise, which, moreover, is not yet completed, but rather with that of Professor Schäfer recently published in this country and with those of Piersol, Satterthwaite and Miller in America. The description of the several tissues is clear but rather short, so that several points are omitted in each section. In that of muscle, for example, nothing is said of the disposition of the capillaries or of the intimate structure of Krause's membrane—in fact, the practice is adopted, which is commendable in a work intended for the guidance and instruction of a beginner, of stating only that which has been satisfactorily established, all controversial points being omitted. The general plan of the work is that it is divided into two parts, with several chapters in each. The first part is devoted to general technique, including the selection of a microscope, the preparation of microscopic specimens according to whether it is required to examine them in the fresh state or to harden or decalcify them, with a description of the various modes of sectioning, staining, injecting, mounting, and preserving them. The second part is occupied with the microscopic anatomy of cells and tissues, including epithelial, connective, muscular, and nervous tissues, which is followed by what constitutes the bulk of the work—the microscopic anatomy of the organs, as the brain, lungs, kidneys, and organs of sense. Finally, there is an appendix giving the details of microtome methods. The brevity of the descriptions is in part compensated for by the number and excellence, as well as the originality, of the illustrations and for the additional remarks that are given under the head of Technic. The "technic" describes the best mode of dealing with each organ to enable the beginner to obtain sections, to prepare them for mounting, and to preserve them.

We give an extract which will show the manner in which the "technic" is treated. It deals with the gastric mucous membrane and is written with the object of instructing the student in the method of demonstrating the "chief" and "parietal" cells of the fundus glands. The mucous membrane is directed to be cut vertically and horizontally and the sections to be stained with Hansen's hæmatoxylin. Then they are to be "thoroughly washed in 30 c.c. of distilled water which must be changed as often as it becomes bluish—about once or twice. Transfer them to 5 c.c. of a $\frac{1}{10}$ per cent. solution of Congo red for from three to six minutes, wash two minutes in distilled water, and mount in dammar. If the sections are too thick everything appears red; the large red parietal cells cover the smaller chief cells. Examine the thinnest parts of the sections, especially the fundi of the glands, where the parietal cells are not so exceedingly profuse. The parietal cells can be recognised with the low power as isolated red spots on a rose-red ground. With the high power the pale-blue smaller chief cells can be seen. The very narrow lumen of the fundus glands may be best seen in cross sections (sections parallel to the surface of the mucosa). The lateral twigs of the chief lumen can only be perceived in very favourable sections." References are made to another section for the preparation of Congo red and there is a reference to one of the woodcuts. The general get-up of the book reflects great credit on the publishers, for the illustrations are so delicate as to require very smooth paper and careful printing to obtain good impressions.

Aphasia and other Speech Defects. By H. CHARLTON BASTIAN, M.A., M.D. Lond., F.R.S. London: H. K. Lewis. 1898. Pp. 366. Price 15*s*.

THE basis of this most important work is the Lumleian Lectures delivered before the Royal College of Physicians last year and published at length in our columns at the time.[1] These lectures are supplemented by the consideration of fresh problems and the addition of numerous cases elucidating or illustrating many points of the subject, and in its present form Dr. Bastian's treatise must be regarded as one of the most complete and perhaps the most philosophical of all our treatises on speech and its anatomical, physiological, psychological, and practical relations. After an introduction which deals in a very interesting manner with the relations existing between thought and language, the different forms of speech defect are considered, and in the succeeding chapters the various structural and functional disorders correlated with them. Modes of recovery from aphasia are then discussed and such interesting problems as are afforded by the state of the musical faculty, amimia, mirror-writing, &c. In conclusion the etiology of speech defects, their diagnosis, prognosis and treatment, and their relation to capacity for exercising civil rights are exhaustively dealt with.

Such a brief examination of the contents of this book will be sufficient to indicate its scope. The views on speech problems with which Dr. Bastian's name is so inseparably connected have been discussed in our columns on more than one occasion, and while in this volume no material modification of these views has been made, fresh confirmatory evidence of their reasonableness is abundantly furnished. Dr. Bastian's view is that the so-called motor areas in the brain are really sensory centres "of kinæsthetic type," and in connection with speech processes he believes there are two centres of this type—a glosso-kinæsthetic centre related to articulatory processes and a cheiro-kinæsthetic centre in connexion with writing processes. Besides these there are an auditory word centre and a visual word centre—sensory centres—and lesions accounting for speech defects

[1] THE LANCET, April 3rd, 10th, and 24th, and May 1st, 1897.

are to be looked for in those centres or in the fibres connecting them with each other or with the motor centres in the bulb, or in these motor centres themselves. Such a scheme leaves no necessity for the "propositionising centre" formulated by Broadbent and those who think with him, and on this Dr. Bastian firmly insists. This is not the place to discuss the *pros* and *cons* of the two theories. Suffice it to say that in the work before us the author's view is clearly enunciated and is supported by a coherent, closely reasoned argument which will no doubt carry conviction to many. But besides this main theme the numerous and interesting subsidiary problems are most clearly discussed and elucidated, and we congratulate the author on this the crowning edifice of his brilliant and philosophical labours on the subject of speech.

On Maternal Syphilis, including the Presence and Recognition of Syphilitic Pelvic Disease in Women. By JOHN A. SHAW-MACKENZIE, M.D. Lond. London: J. and A. Churchill. 1898. 8vo, pp. 223. Price 8*s.* 6*d.*

THE etiology of the numerous forms of pelvic inflammation to which women are liable was for many years very obscure, but it was gradually proved that in many cases the inflammation was due to the extension locally of a gonorrhœal vaginitis or endometritis; in many other cases the condition results from some form of septic infection occurring especially in connexion with parturition; but it cannot be said that these two causes will account satisfactorily for all the cases of pelvic disease. The author of this volume is of opinion that in no small proportion of the cases pelvic inflammation is syphilitic in origin. Frequently no history can be obtained of any primary sore, but it is not always easy to find a chancre in women even when it is present, and therefore it is not surprising that no account can be obtained of the presence of such a lesion when several years have elapsed since the time when it probably appeared. In some cases, as Dr. Shaw-Mackenzie shows, undoubted secondary signs may follow a vaginal discharge which was considered to be gonorrhœal in origin. In other cases, again, the author thinks that the syphilis may not have been acquired, but was hereditary in origin. The results of treatment certainly support in many instances the contention that pelvic troubles are due to syphilis. All who see much of syphilis must have met with numerous cases in which lesions certainly syphilitic occur and yet no trace of any syphilitic history is obtainable. Dr. Shaw-Mackenzie is also of opinion that through a mother suffering from inherited syphilis the disease may be transmitted to a third generation. It is very difficult to prove this proposition, but he adduces many cases which certainly afford it some support. In the treatment of the obscure cases of syphilis with which this work deals the author attaches most value to fumigation and inunction.

The whole subject is difficult, but we think that Dr. Shaw-Mackenzie has done much by the publication of this work to clear up some of the difficulties which it presents.

Text-book of Zoology. By H. G. WILLS, B.Sc. Lond., and A. M. DAVIES, B.Sc. Lond. London: W. B. Clive. 1898. Pp. 366. Price 6*s.* 6*d.*

THIS work is the first of a series, to be soon followed by a text-book of Botany, intended to minister to the wants of students preparing for the intermediate science and preliminary scientific examination of the University of London and other similar tests. The method adopted by the authors is that of the selection of certain types beginning with the rabbit, to which more than a third of the book is devoted, which are carefully worked out. The other types of the vertebrata selected are the frog, dogfish, and lancelet, and of the invertebrata the paramœcium, polype, earthworm, anodonta, and crayfish, which are given in less detail. There is a very good chapter on Development. The book is not intended, and should not be used, as a mere cram-book, but the student should read it with the specimens before him; if this be diligently practised, he will obtain a good idea of some of the principal groups of the animal kingdom. Questions which have been asked, or are likely to be asked, are appended to each chapter, and we must add a word of praise for the many clear and excellent woodcuts illustrating the text, the drawings for which have been prepared by Mrs. Davies.

New Inventions.

NEW URETHRAL SYRINGE.

AT my suggestion Messrs. Arnold and Sons, London, have made a urethral syringe which is a modification of one made by them for me and described in THE LANCET of Oct. 17th, 1896. To repeat, the syringe consists of a reservoir to hold 2 oz. with a pipe 5½ in. in length, size No. 8 or 9 catheter. The previous syringe had the pipe channelled on the exterior to allow of the free return of the injection; I find this channelling can be dispensed with if my instructions for using the syringe are carefully carried out, which are as follows. The syringe being filled in the usual manner the pipe is to be dipped in carbolic oil; now, gently insinuating the nozzle into the meatus by a rotatory motion, the pipe is made to glide slowly in to its full length. No pressure is to be made on the penis, which is allowed to lie in the hand. The reservoir is to be slowly compressed and the injection will be found to return back by the side of the pipe. To the many advantages which I claimed for the syringe in the treatment of gonorrhœa over other syringes I may add another—viz., that the passage of a pipe 5½ in. in length and stated diameter tends to prevent the possibility of stricture in the spongy portion. This syringe will be found much cheaper in price than my previous instrument and less formidable to a nervous patient. I have prescribed this form of syringe for the last ten years in the treatment of gonorrhœa and my having found it most efficacious is my reason for bringing it under the notice of the profession.

RALPH STONEY, L.R.C.S. Irel., &c.

Gloucester-terrace, S.W.

NEW DRESSING TRAY.

THE accompanying illustration represents a useful kidney-shaped tray for receiving the washings during uterine or vaginal douching and conveying it through rubber tubing to a pail beside the bed or operating table. The spout forms the handle which is curved so as to allow it to be easily held

in one hand close to the buttocks without bringing the patient over the edge of the bed. By using this tray, which can be carried in the obstetrical bag, the operator can avoid soiling his hands or the bed. It will also be found useful in syringing ears or douching wounds. It is manufactured by Messrs. Down Brothers, of St. Thomas's-street, London, S.E.

STRANGMAN GRUBB

Ealing, W.

THE LANCET.

LONDON: SATURDAY, OCTOBER 15, 1898.

THE city of Liverpool kept Saturday last, Oct. 8th, as a gala day, the occasion being the opening of the new THOMPSON-YATES Laboratories of Physiology and Pathology by Lord LISTER and the conferring upon him at the same time of the degree of Doctor of Science of the Victoria University. We give in another column a report of the proceedings, but no mere account of what happened, of speeches which were delivered, or of addresses which were read, conveys any idea of the enthusiasm of the people of Liverpool over these two events. The city identified itself with each function in the closest manner. Within the walls of St. George's Hall crowds watched the ceremony which added to the long list of scientific titles enjoyed by the President of the Royal Society the title of Doctor of Science of the Victoria University; without the hall crowds lined the streets, taking the greatest possible interest in the arrival and departure of the distinguished guests of the University College of Liverpool—guests many of whose names are a synonym for learning all over the world; in the Town Hall the Lord Mayor entertained those who had assembled in honour of the occasion with the heartiest of civic welcomes; and every house where the numerous visitors were billeted was the scene of luncheons, dinners, and friendly receptions. What does all this connote? It is certain that if any university, from the most ancient to the most modern of the seats of learning in the kingdom, had five-and-twenty years ago out of its own resources or out of private munificence made some addition to its teaching facilities not a small fraction of the cordial excitement which prevailed last week in Liverpool would have been aroused. A few persons professionally interested in education would have attended the ceremony; a few citizens, struggling against the feeling that the donor might have made a more practical use of his wealth, would also have been present; and the enthusiasm of the community would have been level with that aroused by, say, the election of an alderman or the gift to the populace of a new drinking-fountain.

Only two weeks ago we referred in a leading article to the tendency towards a fusion of interests between the university and the city in which it is placed as forming one of the most significant as well as one of the most recent developments of modern education, and now we have in Liverpool a remarkable illustration of this spirit of sympathy. University College, Liverpool, has received from Liverpool the sum of £400,000 or thereabouts during its comparatively short life. This great sum has been given ungrudgingly and established at once a bond beween the College and the city, but the sentiments of gratitude on the one hand and of satisfied generosity on the other will not account for all the mutual goodwill expressed at Liverpool. The princely present of the Reverend SAMUEL ASHTON THOMPSON-YATES to the College of furnished and equipped laboratories for the study of physiology and pathology cost him no less than £28,000, and Liverpool, or, rather, all England, may well be proud of this open-handed citizen, as the University College has a right to be proud of such a signal and munificent mark of confidence in its work and belief in its future. But the words of Mr. R. B. HALDANE, M.P., and Professor MICHAEL FOSTER at the Town-hall in the evening, no less than the appreciation with which those words were received, show that wider sentiments even than these have been at work in Liverpool to evoke the universal enthusiasm manifested. It is clear that to all gathered together for the inauguration ceremony of the THOMPSON-YATES Laboratories the real significance of the occasion was that another and a great step forward in national education and national progress was being taken, that another practical proof was being furnished of a new educational spirit. One more nail—nay, many and strong nails were being driven into the coffin of the old-fashioned university education which inculcated a spirit of aloofness into its disciples, which led to a division of interests between the best workers and the highest thinkers, and which deprived practical men of the counsels of the learned, while it shunted the learned into careers of compulsory sterility. Medical men will experience a feeling of profound gratification at any successful blow which is dealt at such a system, for it is in the modern curriculum of the medical student that all the good in the old theories of education is most closely combined with all the good in the new. Let us not be found laughing at the belief cherished by our grandfathers and probably by our fathers that the real man of culture was the man who could write correct Greek verse. The reason for this error is obvious. One of our greatest schoolmasters and most original thinkers, EDWARD THRING, in an essay defending the study of the dead languages, says roundly that no sane person holds himself a poet because he writes good Iambics. But THRING immediately proceeds to show in his own convincing way that the study of Latin and Greek forms the finest mental exercise known to him and the most convenient medium for inculcating into lads the virtues of industry and accuracy. He acknowledges that but few of the many who read classical literature ever arrive at any real comprehension of its supreme excellence; but, while revering this literature himself as consisting of consummate masterpieces of artistic skill and beauty of form, he treats the study of it simply as means to the end and not as the end itself. This is what the older university men were, so many of them, unable to do, and as a consequence that most stupid article, the man who thought that a first-class university degree would stamp him as a first-class man for the rest of his life, was produced by them in considerable quantities. The real ability of such men was lost to the nation, while in places where learned guidance would have been most valuable the guides were wanting.

Now the modern education of the medical man forms a close link between the old and the new theories of education. It is an education which is living and progressive, which in its higher degrees produces men of indisputable learning and culture, and which is none the less utilitarian. The

most tangled passage of a corrupt Greek author requires no more absolute care for its right rendering than a physiological experiment asks from the student. No study in the world demands greater accuracy than anatomy. The worker in the vast fields, explored and to be explored, of bacteriology must add to care and accuracy both inventiveness and resource. These qualities when displayed in the acquirement of a classical education were too often wont to lead to practical failure in life, though perhaps associated with distinct academic success, because the student was allowed to believe that his attainments constituted in themselves an equipment to face the world. But the highly trained scientific man grows in use to his community as he grafts on to the lessons of his education the experiences of his work, and this, which is true of all scientific men, is true of none more strictly than of medical men. These are the facts which explain the popular enthusiasm excited by the recent ceremonies in Liverpool. The effusive approval manifested by the citizens of the direction of Mr. THOMPSON-YATES'S generosity may be taken as a proof that the inhabitants of Liverpool see growing up in their midst an institution which will furnish them with leaders of thought and leaders of work, who will conduct them to commercial successes and sanitary well-being instead of spending a lifetime in arid combats with aorists.

WE cannot in the public interest forbear to call attention to the facts elicited at an inquest held on Oct. 8th by Mr. G. F. ROUMIEU on Major CECIL LESTER, an Instructor in Military Topography at the Royal Military College, Sandhurst, who died on Oct. 5th after being attended for a month by a lady "Christian Scientist." From the evidence given at the inquest it would appear that Major LESTER suffered from tuberculous peritonitis and that from August 19th to Sept. 5th he was under the care and treatment of Dr. CLARKE, Principal Medical Officer at the College, and his colleague, and they, recognising the gravity of the case, had called into consultation a physician from Reading and another from London. The condition of the patient gradually grew worse and the physicians felt it to be their duty to inform Major LESTER'S wife and father that he was in a most critical state, and that, although recovery was not absolutely hopeless, it could scarcely be expected. On Sept. 5th Dr. CLARKE was informed that a Christian Scientist had been sent for and that further medical attendance would not be required. Mrs. GRANT, a widow lady, stated to the jury that she received a telegram asking her to attend Major LESTER to give "Christian Science Treatment," and that she commenced her treatment at once before she saw the patient. In reply to the Coroner she said that she treated the patient "by what we should call taking up the right thought of the omnipotence and love of GOD." She stated that she had never had any experience in the management of peritonitis. No drugs of any kind were administered by her, nor did she give any material remedy whatever to alleviate the pain; yet she believed her treatment had the desired effect. General LESTER, in his evidence, said that there was a marked improvement in his son's condition after the treatment of Mrs. GRANT commenced, but he did not know whether that was merely a coincidence.

On Oct. 5th Major LESTER died and Dr. CLARKE, not having seen the patient for a month, rightly and properly refused to give a medical certificate of the death. A post-mortem examination testified to the accuracy of the medical diagnosis and the jury found that the deceased died from tuberculous peritonitis. They added the following riders to their verdict: "1. The jury express their entire satisfaction with the treatment and action of Dr. CLARKE and Dr. GILLESPIE throughout the entire case. 2. The jury also desire to express their sense of abhorrence at the so-called treatment of the deceased by Mrs. GRANT as representing the Christian Scientist Society in not using material means for the alleviation of his suffering." Dr. CLARKE'S high repute and the close attention which he gives to his cases in the office which he has so long and so honourably held are in themselves a guarantee that no consideration or kindly thought was likely to be overlooked in the efforts made on behalf of his suffering brother officer. Fortunately the case is not one where the skill or the treatment of the medical advisers was at any time in question. They themselves recognised the fact that, humanly speaking, recovery was well-nigh hopeless and scarcely to be expected and they said so honestly to the anxious relatives. It is not for us to say that at this stage of apparently hopeless despair it was unnatural in the relatives to wonder if there was anything more that they themselves could do; nor as a mere matter of sentiment dare we blame them for cherishing at a sorrowful crisis what General LESTER described to the jury as a rational and reasonable hope" that there might be something in the "Christian Science" treatment which would lead to recovery. But the contemplation of his death-bed leads us to pass briefly in review the reasons given by the exponent of the Christian Science Treatment for the hope that is in Christian Science Treatment—an excellent and taking phrase but surely a misnomer from beginning to end. Mrs. GRANT told the jury that she gave no material remedy to alleviate the pain. Where was the treatment? Mrs. GRANT told the jury that she had no experience in the treatment of peritonitis; yet she commenced her treatment directly she got the telegram and before she had seen the patient. Where was the science? Mrs. GRANT, "taking up the right thought of the omnipotence and love of GOD," told the jury that she did not believe that suffering was sent by GOD, and she contended that JESUS CHRIST never sent the sick to physicians. If the agony at Calvary for man's redemption was a GOD-sent reality, and if the Miraculous Healer told the Pharisees that "they that be whole need not a physician, but they that are sick," where is the Christianity of the Christian Scientist?

Though sufficiently vital to demand notice we have no desire here to labour this aspect of the question. We fee it rather to be our duty, our solemn duty, to warn Christian Scientists of the grave responsibility which they incur in regard to the health and lives of their fellow-beings. We must point out that their methods of so-called treatment are ignorant devices, spurious in themselves and altogether unscientific and opposed

to common sense. The Christian Scientist talks as if his (merely human) activities were set in motion and pervaded by an atmosphere of Divine potentialities. In an almost flattering way he, as it were, "stands in" with GOD, or, as Coroner ROUMIEU bluntly put it at the inquest, he "tries to usurp the special power which CHRIST had." We feel it, further, to be our duty to point out that apart from evils which may result to individual members of the community from it, the Christian Science treatment is neither more nor less than a *fin de siècle* fad, a drawing-room cult, and that it is the counterpart of the culpable negligence which has brought the Peculiar People of the less educated classes within the range and operation of the criminal law of the country.

THE Public Health Committee of the Lond n County Council are, we are glad to see, properly impressed with the need of an active administration for reducing the risks to the London community from the milk of tuberculous cows. That this risk is in every sense a substantial one there is no manner of doubt. The subject has been fully inquired into by two Royal Commissions, whose recommendations only await the action of Parliament. If the London County Council adopt, as we anticipate that they will, the suggestions of their Public Health Committee, they will seek at once the necessary powers for dealing with this matter, and it is not probable that they will be refused by the Government.

The Public Health Committee have included in their recommendations to the Council the advice to deal with the inspection of the meat-supply of London also. Such inspection is obviously needed, not only on account of tuberculosis, but in respect of other and obvious conditions. The Committee have been for some time under an instruction from the Council to report as to the desirability of establishing public slaughter-houses throughout London and as to the facilities which such a system would afford for the better inspection of the meat-supply of the metropolis. In consequence of this instruction Mr. SHIRLEY MURPHY, the medical officer of the Council, has utilised such opportunities as his holidays have given him—a piece of public spirit, by the way, which cannot be too highly commended—in visiting certain cities in this country and on the continent and has thus made himself acquainted with the system adopted in each for insuring a wholesome meat supply to the inhabitants. The result of his visits to Edinburgh, Manchester, Liverpool, Berlin, Hamburg, and Copenhagen, among other great and important cities, was incorporated by him last summer in a report to the Public Health Committee, in which he showed the inadequacy of the inspection employed at present in the case of meat consumed in London, and pointed out that for the protection especially of the poorer inhabitants, who are the purchasers of the meat which is most likely to be tainted, it was necessary that a system of examination of all dead meat brought into the metropolis should be instituted, save in cases where the meat could be shown to have already undergone examination in a public slaughter-house. In order to insure the inspection of meat killed in London Mr. SHIRLEY MURPHY considered it absolutely necessary that all animals should be killed in public slaughter-houses, where alone an adequate and systematic inspection of the meat could be made. The Public Health Committee now report that they concur in Mr. SHIRLEY MURPHY'S views—views which, it should be remembered, and which the Public Health Committee remind the Council, have received quite recently very exact endorsement in the report of the Royal Commission on Tuberculosis. The Royal Commission on Tuberculosis held the use of public slaughter-houses in populous places to the exclusion of all private slaughter-houses to be a necessary preliminary to a uniform and equitable system of meat inspection, and recommended that powers should be conferred on local authorities to declare, as soon as a public slaughter-house was erected, that no other place should be used for slaughtering, a certain short space of time being allowed for the owners of private slaughter-houses to turn their property to some other purpose.

The resolution which the Public Health Committee invite the County Council to adopt is as follows and defines exactly what the Committee aim at: "That, in the opinion of the Council, it is desirable that as a first step towards insuring the proper inspection of meat private slaughter-houses should cease to exist in London and that butchers should in substitution be afforded such facilities as are necessary for the killing of animals in public slaughter-houses to be erected by the Council." We cannot doubt that the Council will adopt this resolution of their Public Health Committee, founded as it is upon the personal investigations of their medical officer and supported by the report of a very able and painstaking Royal Commission. It may be expected that in London, as elsewhere, opposition will be shown by butchers owning private slaughter-houses. But the record of the County Council is so good in matters concerning the public health, their actions have been so judicious and so open-eyed, that we look forward with confidence to their support of a much-needed sanitary reform in London. Questions of compensation may arise and some expense will have to be incurred in building new public slaughter-houses in convenient situations, but these are small matters compared to the getting rid of private slaughter-houses, which are the only obstacles to the introduction of an efficient system for preventing the sale in London of meat unfit for human food.

Annotations.

"Ne quid nimis."

THE VENTILATION OF UNDERGROUND ELECTRIC RAILWAYS.

THE substratum of the metropolis is being pierced in all directions radiating from the City for the construction of underground electric railways. The electric railway running from the north end of London Bridge to Stockwell has been in working order for some years now, and apparently without any serious hitch having happened in the arrangements. This is the more satisfactory because this line was the first in London, we believe, to apply electric motive power on an underground railway. Not very long ago another line was opened between the Mansion House and Waterloo which has already proved a great convenience to the public.

Other lines are in progress. So far the lines completed show the indisputable advantage of electric traction over steam traction, at least for underground railways. The passages are free from choking sulphurous smoke and the atmosphere is as satisfactory as could be expected under the circumstances. A recent occurrence on the Waterloo and City Electric Railway would, however, seem to show that while the pollution of the underground air by smoke is of course avoided no extra precautions have been made for securing the adequate ventilation of the tunnel in the event of emergency. It must not be forgotten that visible smoke and plainly discerned smells serve after all in the ordinary underground railway as an excellent index of the state of the air, but in the absence of these things, as on the underground electric railways there is no such guide, and insidious poisoning by repeatedly inspiring human exhalations is possible, if not, indeed, suffocation. To some extent these conditions were realised last week on the Waterloo and City line in consequence of the breakdown of a train. It appears that a train going Citywards was full to overflowing by reason of a crowd returning from viewing the Guards on their coming home from the Soudan. The motive power was unequal to the load and the train stopped. The delay was sufficiently long to cause a marked sense of suffocation to the passengers and a degree of panic, while it is reported also that the lights failed. It was fortunate that the stoppage occurred within a comparatively short distance of the City end, so that ultimately the passengers could escape by leaving the train and walking the rest of the distance. It is assumed, and correctly, that the advance of a train through a tube which it closely fits is sufficient to maintain an adequate change of air in the tunnels, in which case no extra provision for ventilation need be made, but in the event of a breakdown the supply of air would soon be exhausted and the result might be disastrous and comparable with the awful historic tragedy of the Black Hole in Calcutta. Either an improved system of keeping up a supply of air must be adopted on the underground electric railways or else a relay of motors must be immediately at hand at both ends of the tunnel to draw the trains out in the event of a breakdown. The former course would be safer, for in the event of a train leaving the rails the delay would be necessarily great and correspondingly serious to the imprisoned passengers. The matter must be referred to the Board of Trade, which we hope in the present instance has not committed a serious oversight. Steps must be taken, if such by some inconceivable want of perspicuity is not already the case, to remove the awful possibility of suffocating a train-load of people. It would be interesting to know whether the underground electric lines in course of construction have included in their plans the provision of an air-supply should any necessity arise.

THE BIRMINGHAM CLINICAL BOARD.

THE prizes awarded by the Birmingham Clinical Board for success in clinical studies in the Birmingham hospitals were distributed on Thursday, Oct. 6th, in the clinical lecture theatre of the General Hospital, by Sir William Mac Cormac, President of the Royal College of Surgeons of England, who delivered a brief address on the Scientific Progress of Surgery and the Importance of Accurate Clinical Observation. Sir William Mac Cormac told his audience that he had been trained at a provincial hospital and that it was therefore with the greatest pleasure that he came to Birmingham to award the prizes. Proficiency in clinical work Sir William Mac Cormac considered to be a most important part of all teaching in medical schools:—

"It was to obtain that proficiency in order to cure others that the student examined the framework of the human body and the functions of every part of it. It would be well if that knowledge were more extensively acquired, and he was sure that the better equipped by preliminary training in general knowledge and general culture in science they were when they came to their studies the better able would they be to secure the advantages which clinical studies presented. In order to obtain this proficiency they must, above all, develop and train that very precious quality—the faculty of observation. Many persons saw while they did not observe. In the wards and elsewhere they had opportunities of cultivating the faculty of observation and all the great physicians and surgeons of our time and of past times had possessed it in a large degree, and had cultivated it to the highest possible point. He need only refer to one who was recognised not only in this country but all over the world as one of the greatest of surgeons, the founder of scientific surgery. The record of his life showed what a profound and regular observer he was. Even in his boyhood he used to take his observations of the common things about him, of things that, perhaps, most of them would pass by unheeded, and probably he was a very unpleasant companion, for he often pestered people with questions about which nobody cared and probably nobody knew anything about. That quality of observation, when they had cultivated it, would lead them to see things which otherwise would be quite beyond their ken, to notice and appreciate facts which others would pass by. No doubt many students had been amazed at seeing a physician or a surgeon in a ward 'spot' at once some disease, or injury, or malformation which they themselves would not have noticed. It seemed to them a kind of instinct or intuition, but it came from a long habit of observation and the long experience which had cultivated that power. He could not too strongly commend to them the great advantage which it would be to cultivate this faculty."

Sir William Mac Cormac concluded by describing to his audience the new clinical laboratory of St. Thomas's Hospital.

URBAN BURIAL.

THE *North American Review* for August contains an article by Dr. Louis Windmüller entitled "Graveyards a Menace to Health," which has attracted considerable attention. It will probably be news to a large number of the readers of THE LANCET to learn that New York City is as plentifully supplied with graveyards situated in crowded parts of the town as almost any old English or continental town, but, according to Dr. Windmüller, in the early part of this century graves were in evidence in New York to such an extent that an Englishman who visited the United States speedily returned when he found every street in New York lined with headstones. In regard to the objection raised against cremation by members of the medical and legal professions on the assumption that poison cannot be detected in the ashes the writer of the article says that this view is now generally abandoned and considers that in suspicious cases intestines might be preserved before the rest of the corpse is consigned to the furnace, but that in any case fire would scarcely consume a mineral poison. Here the writer seems to us to under-rate the heat of the furnaces usually employed, under which many minerals would certainly be volatilised. Dr. Windmüller goes on to say that when mineral poison is found in the stomach of a disinterred body which has been embalmed it cannot be considered a conclusive proof of crime because the fluid injected into such bodies usually contains arsenic, but such a small percentage of bodies undergoing interment have been previously embalmed that the fact is hardly worth adducing as an argument. Dr. Windmüller next expresses anxiety as to the soil in the neighbourhood of great cities if the usual system of burial is persisted in. If 4000 corpses are crowded into the space of one acre, the limit in the case of the most populous graveyard, and if the present rate of mortality in New York—20 per 1000 inhabitants—be accepted as the standard, with a population of 3,500,000 New York

must provide room for 70,000 burials annually and would require annually 17½ acres to bury them in. Unless custom is changed the available room in the vicinity of large cities will, he thinks, gradually be absorbed by the remains of the dead. Dr. Windmüller then proceeds to review the earth burial from a sanitary standpoint and remarks: "Innumerable proofs furnished by scientific men of all ages, recently by Dr. Pasteur, show that earth retains instead of destroying the germs of disease contained in a body and that it in some degree will vitiate its surroundings." Among other points he cites in support of this contention one that the French Academy of Medicine located the origin of diseases of the lungs and throat in putrid emanations from the Parisian cemetery of "Père la Chaise," and, again, that drainage from cemeteries in Philadelphia has polluted water in Fairmount reservoir. The second of these points does not amount to much, for no one doubts that a cemetery can damage a water-supply. The article concludes with these words: "Since thirty years ago cremation has been reintroduced in civilised communities many thousand bodies have been thus disposed of, including those of Hans von Bulow, George du Maurier, Jacob Moleschott, F. Gregorovius, and Anton Seidl. Instead of condemning their memory because they refused it to allow their corpses to become offensive, let us follow their noble example and help to remove one of the most odious stains on our civilisation." As a single-minded plea for cremation regardless of the arguments of controversialists on the other side Dr. Windmüller's paper is worth perusal.

THE RIGHTS OF EXPERT WITNESSES IN THE UNITED STATES.

SOME consternation has been caused in the profession of the United States by the decision of the Supreme Court in the case of J. N. Dixon *versus* the People of the State of Illinois, which was filed in 1897 and is the subject of a paper read recently to the Illinois State Medical Society and reported in the *Medical Record* of August 27th. In January, 1895, Dr. Dixon of Sangamon County, Illinois, in answer to a subpœna appeared in the Circuit Court as an expert witness. He was confronted with a hypothetical question relating to injuries, of which he had no personal knowledge, said to have been sustained by a woman whom he had never known. He was asked as to the probable results of a fall on a defective side walk in producing certain injuries, and after receiving the assurance of the court that he was called as an expert witness only he respectfully declined to answer, basing his refusal on the ground that an expert witness is entitled to a different and greater compensation than an ordinary witness is allowed and that an expert is not required to give expert testimony without compensation as an expert unless a reasonable compensation shall have been paid and provided for. The court held his refusal to be contempt of court and fined him $25. An appeal was allowed to the Appellate Court. This court upheld the judgment of the Circuit Court, stating that the statute has fixed the compensation to be paid to all witnesses and "the law requires every person when duly subpœnaed to appear as a witness and accept as full compensation the statutory allowance, however inadequate it may be." The court took occasion to state that knowledge gained by study, observation, and experience is not "property" within the meaning of the word in the sense that "private property shall not be taken or damaged for public use without just compensation"—"the word property means tangible things and rights which accompany, or are incident to, the use, enjoyment, or disposition of such things." In June, 1896, the case came to the Supreme Court on a further appeal, when Dr. Dixon's attorney referred to the custom of the ancients and quoted the authorities and practices of every civilised country according to which expert testimony is either property or "particular service" entitled to full and just compensation. The court came to the same decision as the courts below and decided "that a physician when subpœnaed and interrogated as an expert witness may be compelled to testify without any pay other than the statutory fee. He must testify in civil as well as in criminal suits, since in either case the object is to promote public justice and ensure the peace and good order of society." Refusal to testify is contempt of court. Fortunately this is only the law of the State of Illinois, and we venture to hope it will not be adopted by other States. According to it the busiest and most skilful medical men may be subpœnaed by any party in any case and will be obliged for a miserable fee to leave proper and greater work without any adequate remuneration. What would lawyers say if an eminent master of their profession were summoned from his ordinary duties by subpœna and paid the fee of an ordinary witness?

A "QUESTIONABLE SHAPE"—A POPULAR ERROR.

UNDER the title of "In Dead Eyes" an evening contemporary recently made a statement which carries its own confutation with it. It is to the effect that a physician and enthusiastic photographer, being desirous of testing the amount of truth in the theory that dead eyes retain complete images, had carefully examined the eyes of hundreds of dead people, and though he had never seen anything like a distinct picture mirrored he had certainly distinctly traced both letters and objects on the *iris* of the eye, and that when the photographic test was applied these images became visible. In one case a capital letter of peculiar form was shown which could be traced to a Testament held in the hands shortly before death. In another case a numeral was distinctly pictured which was traced to a clock face in the room. The article in question continues: "The chief scientific paper of France only the other day gave full particulars of a case where a woman who died in one of the hospitals had two numbers, 10 and 45, mirrored in the *iris* of her eyes." These absurd stories originate in the well-known experiments of Kühne on the visual purple of the retina, in the course of which he showed that by making special arrangements the cross-bars of a window focussed on the *retina* could be brought into relief. The enthusiastic photographer, if he be not misquoted, ought to have known that no well-defined images of the external world are cast upon the iris and none, therefore, could be preserved. The surface of the iris is far too uneven to act as a mirror. Moreover, as no arrangement were made to prevent the further action of light after death they would if formed be certainly obliterated as the image on a photographic plate would be if permanently exposed. The only mode in which an image impressed on the retina could be rendered visible would be to adopt the method of Kühne—viz., by exposing the eye previously kept in the dark for a minute or two to an illuminated object, then extirpating it, opening it, and immediately plunging it into a solution of alum. The image develops in the course of twenty-four hours.

SYPHILITIC PHLEBITIS.

IN *La France Médicale* of August 12th Dr. Barbe very truly remarks that syphilitic phlebitis is not often described, perhaps because it is imperfectly known and passes unnoticed. Sometimes the lesion is localised (venous gumma), sometimes it affects a certain extent of the vein. Langenbeck was one of the first who drew attention to syphilis of the veins. In 1881 he extirpated a tumour in the neck as a cancer. The microscope and ulcerations in the mouth and throat which followed showed it to be a gumma. It grew from the external coat of the jugular vein. He relates

another case in which a similar diagnosis was made and a gumma of the femoral vein was removed. The patient died from pyæmia. In 1872 Gosselin observed in a syphilitic woman, aged sixty-five years, a painful and tender swelling in the upper part of the calf beneath and not adherent to the skin. Palpation revealed a cord 4 centimetres long and 1 broad. There were no varices. He diagnosed gumma in the external coat of the external saphenous vein and under specific treatment the patient was relieved in 15 days. Gosselin further observed in a case of secondary syphilis precocious gummata in the cellular tissue and in both internal saphenous veins. Dr. Heuzard, in his *Thèse de Paris*, 1898, describes secondary and tertiary phlebitis; in the former several veins are affected together or one after the other, in the latter the phlebitis may be circumscribed (gumma) or diffuse. Secondary phlebitis affects principally the saphenous veins. It manifests itself at first by congestion which may take the form of red lines corresponding to the course of the veins. Palpation reveals tender cord-like induration of the veins and œdema of the leg. Specific treatment is rapidly successful; sometimes there is a relapse. The veins usually remain permeable. In tertiary phlebitis the veins are sometimes obliterated, sometimes varicose and elongated. Recovery is not always complete; sometimes induration remains.

THE "SATURDAY REVIEW" AND MEDICAL STUDENTS.

WE do not know why the *Saturday Review* should have gone out of its way to indulge in some offensive and insulting remarks regarding medical students as a class, for we do not hesitate to say that the writer's experience in this respect is quite opposed to that of other people who, as far as social position and opportunities for observation and judgment are concerned, are quite as well, and probably much better, qualified to form an opinion. *Apropos* of Mr. G. R. Turner's recent introductory address at St. George's Hospital (in which reference was made to the portraits of medical students in the pages of Dickens and Thackeray as having been drawn from the worst types of a bygone age and in which it was asserted that the behaviour of the London medical students would compare not unfavourably with that of the undergraduates of Oxford and Cambridge) our contemporary gives us the benefit of its experience as follows: "At any rate, we have usually found the medical student to be an individual who combines the maximum of ill-breeding with the minimum of sobriety and who may be generally classified under the genus 'cad,' though doubtless Mr. Turner regards the few exceptions as a hopeful and promising sign for the future." Medical students are drawn from the same social stratum and are educated at the same schools as members of the other professions and they very commonly have relatives in the church, navy and army, law, literature, science, and journalism. These are not "generally classified under the genus cad," although there are doubtless to be found cads, snobs, and prigs among them. Mr. Turner was perfectly justified in saying that the medical profession was now only fit for those with high ideals, good health, good intellects, and a capacity for hard work.

THE RELATION OF THE GROWTH OF THE INFANT TO THE COMPOSITION OF THE MILK.

IN an article contributed to the *Zeitschrift für Physiologische Chemie* (Band xxiv., p. 285) Dr. Pröscher has, at Professor Bunge's suggestion, set himself to corroborate by further research on a large scale an observation made by Professor Bunge himself to the effect that the rapidity of growth in the suckling is dependent upon the proportion of albumin in the milk. Professor Bunge believed he had demonstrated this to be correct in the case of man, horse, cow, and dog. Dr. Pröscher ascertained by experiment, on the one hand, the time required for the newly-born young to double its weight, and, on the other hand, the percentage of albumin in the milk in various animals with the following results. The human infant doubled its weight in 180 days and the percentage of albumin in the mother's milk is 1·86. The foal doubled its weight in 60 days and the milk contained 2·3 per cent. of albumin; the calf in 47 days with 4 per cent. of albumin; the pig in 18 days with 6·89 per cent.; the lamb in 10 days with 7 per cent.; the pup of the dog in 8 days with 8·28 per cent.; and the kitten in 5 days with 9·53 per cent. of albumin in the milk. This law appears also to hold good for the development of the individual. Thus the amount of albumin in human milk on the first and second days after childbirth is 8·6 per cent.; from the third to the seventh day 3·4 per cent.; from the eighth to the fourteenth day and onward during the first three or four months 2·5 per cent., whilst in the second half year after childbirth it falls to 1·6 per cent., which is in correspondence with the gradually falling rate of increase in weight of the infant. In a further series of researches Dr. Pröscher treats of the influence of climate on the composition of milk. He finds from a comparison of a large number of analyses that the milk of animals living in the south of Europe is poor in fat but rich in sugar, whilst the converse obtains in those of the north. The large percentage of sugar in human milk is, he suggests, an indication that man was originally an inhabitant of a warm climate.

THE GORDON BOYS' HOME.

WHILE the reconquest of the Soudan is still fresh in the minds of our readers it is appropriate that we should bring under their notice the institution which is in every sense our greatest national memorial of the heroic Gordon—the Gordon Boys' Home at Chobham. It is satisfactory to learn from an article recently published in the *Charity Record* that the expectations which were founded on the progress of this establishment have not been disappointed. The arrangements within the Home, it will be remembered, are of the most comprehensive character. Provision is made not only for the ordinary course of study as in other schools, but it is amply supplemented by technical instruction—a fact which has probably not a little to do with the success of Gordon boys in after-life. The chapel, which is a Royal foundation in memory of the late Duke of Clarence, and the hospital, containing three wards endowed by Mr. and Mrs. Hamilton-Yatman, are among the most attractive edifices within the grounds of the Home. The boys' band has proved itself a great success and the superintendent, Colonel Walker, has many more applications from the military authorities for boys who have been trained in it than he can satisfy. It is to be noted that due account is taken of any natural bent in the ultimate disposal of the boys. Some particulars given in this connexion are interesting. Up to the present date 363 boys have entered the Army, 20 the Royal Navy, and 14 the mercantile marine; 250 are in civil employ, 13 have emigrated, and 19 have joined the Cape Mounted Rifles. These youths, it is hardly necessary to add, have been rescued from those who often from no fault of their own constitute the broken and wandering wreckage of civilisation. The revelations of juvenile atrocity in Lambeth and elsewhere have shown us what they may become if left to wander. In the results obtained by the Gordon Home we see the converse of that picture. Surely it needs no laboured argument to explain the teaching of this forcible contrast. Hitherto a gratifying measure of support has been accorded to the Home, the popularity of which is, we trust, assured. It is always needful to remember, however, that such a work as that which it carries on cannot be done for nothing, or even at a small

cost. As matters now stand the institution can only afford accommodation to 240 boys instead of 360, the number which it is intended to provide for, and it is, moreover, confronted with building and other needful expenses amounting to £2500. Under these circumstances, and in consideration of a past so meritorious and a future so promising, we earnestly hope that the British people in their giving will well remember this eminently practical charity. Lieutenant-Colonel Beatty-Pownall, 20, Cockspur-street, we may mention, will be happy to receive contributions to the Home.

THE CHARITY ORGANISATION SOCIETY AND MEDICAL RELIEF.

As will be seen from a letter published in another column the Charity Organisation Society have set on foot a course of eight lectures dealing with the subject of medical relief. The fee for attending the course is 5*s*., or for a single lecture 1*s*. The opening lecture will be free. The subjects chosen are certainly of interest to medical men and the names of the lecturers are a guarantee that the various matters will be dealt with by those who have a knowledge of what they speak about.

THE PLAGUE IN INDIA.

THE latest returns from India for the week ending Oct. 8th show no decrease of plague for Bombay city and Presidency. The epidemic continues to spread at Bangalore, where 371 cases have occurred since Sept. 28th last. The disease also still prevails at Karachi and to a slight extent in some Madras districts. Calcutta, which has hitherto suffered but little, is now, we are glad to say, officially declared free from plague, no cases having occurred there for ten days. The local government and municipal authorities are wisely alive to the fact, however, that experience has shown that the accession of cold weather is apt to be accompanied by a renewed activity of the disease and are consequently not relaxing their precautionary measures.

MORBID ANATOMY OF YELLOW FEVER.

IN the *Medical News* (New York) of Sept. 3rd Dr. Eugene Wasdin gives a detailed account of the results of numerous necropsies which he has performed in cases of yellow fever and makes some interesting observations as to the post-mortem diagnosis of this disease. He remarks that the yellow fever cadaver has certainly a most characteristic appearance. All subjects dead from the disease bear a close resemblance to each other; indeed, it would not be difficult to make a diagnosis, other facts being favourable thereto, from the cadaver alone. Post-mortem rigidity comes on early and persists. The colour is invariably more or less intensely yellow, which is due to a mixed hepatogenous and hæmatogenous jaundice. This yellow tint is always contrasted with the deep purple discolourations from hypostasis which quickly appear in the skin of the dependent portions of the body after death. Dr. Wasdin's experience in necropsies in subjects dead from malarial fever in the South has shown him that there are externally many points of resemblance in them to the yellow fever cadaver, and he feels assured that at times the decision between them would be very difficult or even impossible. Dependence must then be placed upon the conditions found in the internal organs. A good account is given of the changes which are seen, but which we have not space to notice here. He draws attention to a very notable congestion of the vasa vasorum of the great vessels at the base of the heart, these minute vessels forming a delicate tracery over the serosa and upon the walls of the auricles, which at times present minute ecchymoses. Dr. Wasdin deems this a very constant and characteristic appearance. He further says that a yellow fever necropsy is usually considered to be a bloodless one, but this is by no means the case. In reality, the full influence of the toxin falls upon the vaso-motor system and results in an incomparable congestion of the vessels of the abdomen and when complete the section presents an appearance quite the reverse of bloodless. The question naturally arises as to the diagnostic value of the conditions described in this paper. Is it possible to arrive at definite conclusions from an isolated case presenting all the signs usually found in cases of death from yellow fever? Should we be justified in such cases either in withholding quarantine protection from a community or in initiating quarantine to the possible detriment of commerce? From his recent observations Dr. Wasdin feels safe in asserting that it is not possible to diagnose this disease from the post-mortem appearances and the gross microscopic findings alone. He does not undervalue their importance, when taken in due consideration with the history of the case, the clinical charts, and the history of albuminuria, in assisting the observer to form an opinion, but in the absence of these accompanying facts they are not sufficient to enable him to name the disease, although a diagnosis may be safely ventured upon in the absence of any other known cause of infection.

FEMALE HEALTH VISITORS AS AIDS TO SANITARY PROGRESS IN MANCHESTER.

WHAT may be termed the lay element in sanitation is not always an unmixed blessing, but if this force can be kept within proper channels much good may conceivably result from it. Such at any rate is apparently the lesson to be learnt from the efforts of the Ladies' Health Society in the city of Manchester, an organisation which was started in 1862. The health visitors of this society live in their respective districts and each devotes six hours daily (Saturdays excepted) to visiting, a report of the work done being received each morning by the medical officer of health. Amongst the duties devolving upon the visitors is to supply lime for limewashing, and the loan of brushes, &c., for use; and as an instance of what is done in this direction Dr. Niven tells us that one visitor alone succeeded in bringing about in 1897 the limewashing of 50 bedrooms as well as numerous sculleries, kitchens, &c. In the matter of advice and guidance the visitors are most active, and much burning of refuse, washing of clothes, &c., is done under their supervision. They are the bearers of disinfecting powder and of printed instructions concerning the feeding of children, while any sanitary defects which they discover on their rounds are at once reported to the medical officer of health. The promotion of ventilation is naturally within their province and the fact that one visitor sold 50 blocks of wood for fitting beneath the lower sashes of windows will afford an indication of the success of their efforts. In a word, their work is, in the main, educational, and everyone familiar with the conditions of the poor in our large towns knows the importance of a movement such as this.

THE CAUSE OF THE DEATH OF GEORGE II.

AT a time when England was resounding with proclamations of naval and military glories George II. died suddenly at Kensington from a rupture of the right ventricle of the heart whilst preparing for a walk in the gardens. This was on Oct. 25th, 1760. In the *Phonographic Record* for October of the present year Dr. G. F. Atchley publishes a reprint from the *Royal Magazine* of 1760 giving an account of the necropsy made upon the body of the King. The report is dated Kensington Palace, October 16th (*sic*), 1760, and is as follows:—"In obedience to the order transmitted to us by the Rt. Hon. Mr. Vice-Chamberlain,

we, the undersigned, have this day opened and examined the body of his late Majesty, in the presence of Sir Edward Wilmot, Bart., and Dr. Nicholls, two of his late Majesty's physicians; and first on opening the belly we found all the parts therein contained in a natural and healthy state, except only that on the surface of each kidney there were some hydatids or water bladders, which, however, we determined could not have been at this time of any material consequence. On opening the breast we observed the pericardium or bag which contains the heart extremely distended, which was owing to a large effusion of blood that had been discharged therein from a rupture in the substance of the right ventricle of the heart. The quantity of the blood in the pericardium was at least a pint, the most part of which was strongly coagulated. The rupture of the ventricle and the consequent effusion of blood in the pericardium were certainly the immediate cause of his late Majesty's sudden death. The brain, lungs, and all the other parts were in a perfect state. (Signed), E. Wilmot, John Ranby, Fr. Nicholls, and C. Hawkins."

ANTI-RABIC INOCULATION IN BRAZIL.[1]

DURING the eleven years which elapsed from the opening of the Pasteur Institute at Rio de Janeiro in February, 1888, to the end of last April 3973 persons presented themselves for treatment, but of this number no fewer than 1326, or 33 per cent., were refused admission chiefly because it was found that the animals they had been bitten by were not suffering from hydrophobia; and after the treatment had been inaugurated there was, for various causes, a further elimination of 106 cases. The number of persons who underwent the preventive process in its entirety was consequently 2541, and amongst these there were 20 deaths from hydrophobia, a percentage equal to 0·78 In view of the pains taken to exclude all illegitimate cases this would seem to be a sufficiently satisfactory death-rate, but in the opinion of Dr. Ferreira dos Santos, the Director of the Institute, the true rate was considerably lower. 9 of the 20 deaths occurred within a fortnight of the final inoculation—that is, before the protective influence of the injected virus had had time to become fully established, and he contends that these should on that account be withdrawn from the calculation. In that case the "definitive statistics" of the first decade of the Rio de Janeiro Pasteur Institute would read as follows: Number of persons treated, 2532; deaths, 11: percentage of fatal cases, 0·43. Generally speaking the mode of procedure adopted at the Brazilian institute is precisely the same as at the Parisian, only a few slight modifications as o matters of detail having been introduced by Dr. Ferreira dos Santos. The inoculations take place at 8 o'clock in the morning, but in urgent cases a second inoculation may be administered at 5 o'clock in the afternoon for a few days at the outset of the treatment. The marrows employed for first inoculations are of fourteen days' standing, and for the last of three days'. In dangerous cases, however, more especially when the temperature of the air exceeds 70° F., thus conducing towards rapid desiccation, the final inoculation of the series should be performed with a second-day marrow. The virus now in use was derived from rabbits which were inoculated in Paris in July, 1887, and since then has passed through 360 sets of these animals without a break, the rabbits invariably developing symptoms of the disease on the sixth day. Instead of veal broth a 1 per cent. solution of chloride of sodium in filtered sterilised water is used, and the director maintains that he thereby almost entirely obviates pain even in the most sensitive of his subjects. The following compressed statistical items will be found interesting. Out of the 2647 persons who were accepted for treatment only 96 had been efficiently cauterised, although in 1900 cases the bites were inflicted on exposed parts. In 236 of the attacking animals hydrophobia was experimentally proved to be present, and in 1173 more the symptoms exhibited during life were pathognomonic of the disease. 59 of the persons who presented themselves at the institute withdrew on learning the nature of the treatment, one of them subsequently dying from hydrophobia. 65 individuals left the institute prematurely after commencing the treatment, and of these 3 died from the same disease; 6 patients developed hydrophobia while undergoing the inoculations, 5 of them having been bitten in the head. Among the rejected applicants there were 51 persons who presented more or less severe contusions but no abrasions or other solutions of continuity, and also 9 who came because they had been bitten by animals which subsequently became rabid.

[1] Annales de l'Institut Pasteur, Paris, August, 1898.

THE MIDLAND MEDICAL SOCIETY.

THE Midland Medical Society attained its jubilee this year and in order to celebrate this event a dinner was held at the Grand Hotel, Birmingham, on Thursday, Oct. 6th. Mr. J. W. Taylor, president of the society, was in the chair and the company included Sir William Mac Cormac (President of the Royal College of Surgeons of England), Sir Benjamin Stone (M.P. for East Birmingham), the Right Rev. E. A. Knox (Bishop of Coventry), Mr. T. H. Russell (the President of the Birmingham Law Society), and many prominent members of the medical profession. Sir William Mac Cormac proposed the toast of the evening and spoke with enthusiasm of the success and ability of Birmingham medical men. Of the Birmingham General Hospital he said that "as far as his humble judgment went he thought that not even in London was there any hospital equal—he would not say superior, but not one equal—to the hospital which Birmingham now possessed. Everyone connected with the hospital might be congratulated, as well as the town to which the institution belonged." This is high praise, but there is no one better fitted to give such an opinion than the President of the Royal College of Surgeons of England, for he has had opportunities of seeing hospitals in every capital in Europe, while, as reference to our columns will show, he is indefatigable in his visits to the institutions of our provincial capitals.

ANTI-VIVISECTIONISTS AT BRADFORD.

DURING the recent Church Congress at Bradford the Church Anti-Vivisection League called a meeting at which the chair was taken by the Rev. T. Perkins. The reverend gentleman made a speech of a curious character for a chairman, for it was throughout a strong indictment of the practice of vivisection. Mr. Perkins has, of course, every right to his own opinions, but we should have thought that the duty of a chairman was to be impartial. Be this as it may, Dr. Hime proposed the following resolution, which was carried by an overwhelming majority:—

"That in the opinion of this meeting human interests are of paramount importance as compared with those of other living creatures, and therefore we are justified in utilising the lower animals for the preservation of human health and life, all unnecessary suffering being avoided."

We have on a previous occasion had a passage of arms with the Church Anti-Vivisection League concerning a leaflet which it circulated in regard to Hospital Sunday. In THE LANCET of June 6th, 1896, will be found a reply from Miss Woodward, the secretary, to an annotation published in our columns on May 30th, 1896. It will be seen by the leaflet issued by the League that information and proof will be supplied to any of the clergy who may

doubt the assertions of the League. We applied for proof, but unless Miss Woodward's letter can be considered as such we did not procure it. A second appeal has also failed to get any information from Miss Woodward—but then we are not clergy. We are, therefore, reluctantly compelled to the belief that the Church Anti-Vivisection League is one of those secret societies with which the Church, according to a recent correspondent in the *Times*, is honeycombed. A society which only supplies information to the clergy is evidently sacerdotal to a most dangerous degree.

YELLOW FEVER IN AMERICA.

THE situation caused by the spread of yellow fever in the state of Mississippi is somewhat threatening. There have been 470 cases and 36 deaths in the state since the outbreak of the disease. It is curious to notice the interdependence existing between sickness and commercial interests. The price of several of the United States railroad shares in the London market was no doubt affected by the reports of the spread of the yellow fever epidemic in the South. It seems probable, however, that the accession of colder weather in Mississippi will repress the spread of the disease and allay the fears entertained that the entire State will be infected.

THE FRIENDLY SOCIETIES AND THE GENERAL MEDICAL COUNCIL.

WE gather from a paragraph in the *Times* that at a conference of the leaders of friendly societies the interim report of the General Medical Council on Medical Aid Associations was under discussion. A sub-committee was appointed to go into the whole subject, from which we may hope for the existence of a desire on the part of the friendly societies to adopt reasonable proposals for the adjustment of differences between them and the medical profession.

MISLEADING ADVERTISEMENTS AND SCIENTIFIC CRITICISM.

A CASE of great interest and importance with regard to the publication of scientific criticism of proprietary articles has recently been decided in France. The decision was arrived at in March last, but was not publicly known until a certain time for appeal had been allowed in accordance with the requirements of French law. The findings of the court have recently been made public. The facts of the case are briefly as follows. A firm of opticians in Paris were the proprietors of a glass containing baryta, from which lenses described as "isometropic" were prepared. With the view of testing the statements made in favour of those lenses by the proprietors, Dr. Javal, the director of the Ophthalmological Laboratory of the Sorbonne, instructed his assistants to make a careful examination of the glass and lenses and to report to him the results. Subsequently these results were published and presented to the French Academy of Medicine, the conclusion being that the differences between baryta glass and ordinary glass were insignificant; there was nothing in favour of the former, and the "isometropic" lenses did not offer any advantages to purchasers. The proprietors brought an action for damages to the extent of 20,000 francs, but the court decided that a scientific man might rightly examine and criticise on public grounds any manufactured article for which special merits were claimed, and they found for the defendant upon all the issues, condemning the plaintiffs in costs. Nothing could be more satisfactory than this decision and we could wish to see this example followed in this country. How instructive and useful to the community at large would it be if the Fellows of the Royal Society or the Chemical Society could leave abstruse pursuits for a while and present papers, say, on the composition of "Munyon's Remedies," "Pink Pills," "Siegel's Syrup," "Blood Mixture," "Microbe Killer," and so on *ad nauseam*. Could, indeed, this be realised we might at last hope that the scales would be removed from the eyes of a remarkably gullible public.

RELAXATION OF MUSCLES IN ORGANIC HEMIPLEGIA.

IN 1896 M. Babinski read a paper on this subject at a meeting of the Société de Biologie. He observed in several cases of hemiplegia and monoplegia due to a cerebral lesion a relaxation of muscles which allowed passive movements in the affected limbs of greater extent than in the sound. His observations particularly refer to the degree of passive movement of flexion of the forearm, which could be carried to a greater extent on the paralysed side. He observed this phenomenon at first in recent cases of hemiplegia with flaccid paralysis without increase or with decrease of tendon reflexes. In a case of twenty hours' duration when the legs were hanging the angle formed by the foot with the leg was greater on the paralysed side; when the forearms were horizontal and pronated flexion of the hand was also greater on this side. In none of the cases was there amyotrophy. Afterwards he observed this phenomenon in several cases of hemiplegia of several months' duration with exaggeration of reflexes. M. Babinski thinks that the phenomenon is of the same nature as the drooping of the angle of the mouth which is observed in hemiplegia; it is due to a loss of tonicity of muscles. It is somewhat singular that relaxation of muscles should occur with exaggerated reflexes. In the various cases of hysteria which he observed since his attention was directed to the phenomenon it was absent. He is therefore led to believe, without being dogmatic, that it may serve to distinguish organic from hysterical monoplegia and hemiplegia.

THE TREATMENT OF SPASMODIC TORTICOLLIS.

IN the *Boston Medical and Surgical Journal* of August 18th, 1898, Dr. H. J. Hall relates two cases of spasmodic torticollis—one cured and the other much relieved by the use of a spring to press on the cervical muscles. A woman, aged thirty-six years, was seen five months after the onset of spasmodic torticollis. Whilst recumbent there were no unnatural movements of the head, but on sitting up rhythmic contraction of the right sterno-mastoid muscle and of all the posterior rotators and retractors began. The head was turned with much force to the left and was markedly retracted. He observed that a firm grasp of the hand on the neck greatly diminished the spasm. The application of a spring clamp to the back and sides of the neck at once decreased and controlled the spasm, which recurred on removal of the pressure. The clamp was of simple construction, being made of light spring steel broader than, but similar to, that used as trousers' guards by bicyclists. A tail-piece ran from the middle of the spring about 6 in. down the back so as to keep it in position. A gentle pressure was thus exerted on the back and sides of the neck as far forward as the anterior border of the sterno-mastoid muscles. After a month the spring could be discarded for several hours a day. As a final result there remained slight painless and fixed left torticollis due to permanent contraction of the affected muscles, but the patient could turn her head freely and there was no retraction. The second was a severe case of five weeks' duration which was relieved at once and in three months was practically cured by the clamp and gymnastic exercises.

THE opening lecture of the winter session of the Hospital for Consumption and Diseases of the Chest, Brompton, will be on Aneurysm of the Aorta, and will be delivered by

Dr. Mitchell Bruce on Wednesday, Oct. 19th, at 4 P.M. The lecture is open to students of the hospital and to all qualified members of the medical profession. The forthcoming lectures will be announced week by week in our Medical Diary.

THE annual public night of the Medical Society, University College, London, will be held on Oct. 19th, when an address will be delivered by Professor F. T. Roberts, M.D., F.R.C.P. Lond., on "The Personal Factor." The chair will be taken at 8 P.M. by the President, Dr. H. Batty Shaw. There will be an exhibition of Medical and Surgical Appliances.

AT the quarterly meeting of the Directors of the Naval Medical Supplemental Fund, held on Oct. 11th, Dr. W. H. Lloyd, Inspector-General, in the chair, the sum of £56 was distributed among the several applicants.

HENRY ALFRED ALFORD NICHOLLS, M.D. Aberd., C.M.G. (medical officer of the public institutions), has been appointed an Official Member of the Legislative Council of the Presidency of Dominica.

THE OPENING OF THE THOMPSON-YATES LABORATORIES AT LIVERPOOL.

LIVERPOOL on Saturday last, Oct. 8th, was the scene of two imposing ceremonies—the opening of the Thompson-Yates Laboratories of Physiology and Pathology by Lord Lister and the conferring upon the founder of antiseptic medicine the degree of Doctor of Science of the Victoria University. The two ceremonies were blended into one by the happy management of the authorities of University College, Liverpool, who thus displayed for the consideration, not only of scientific men and not only of Liverpool, but of all civilised and progressive communities, a highly impressive event. When the Rev. S. A. Thompson-Yates furnished the noble sum of money necessary for the erection of these laboratories and also came forward, as he did, to meet the great additional expenses necessary to provide furniture for them and equip them from top to bottom with every fitting and every instrument known to modern science as useful either in educational work or in the most recondite and speculative departments of research, it was felt that one man was marked out as the right person to declare the buildings open to students for the advancement of science in general and of scientific medicine in particular—that person was Lord Lister. It was therefore with great pleasure that Liverpool—the city every whit as much as the University College—heard that the President of the Royal Society was able to fall in with their unanimous wish and perform the opening ceremony, while the opportunity was readily seized by Victoria University to do honour to Lord Lister, and to themselves, by conferring upon him the honorary degree of Doctor of Science.

THE CONFERRING OF A DEGREE UPON LORD LISTER, P.R.S.

At three o'clock on Saturday afternoon St. George's Hall was an imposing sight, being crowded with an assembly representative of all the prominent classes in Liverpool, academic, political, social, professional, and commercial, who had gathered together to see the degree of Doctor of Science of Victoria University conferred upon Lord Lister—the first degree, we believe, which has been conferred by the University in Liverpool. Shortly after three a procession of gentlemen who for the various reasons suggested by their names, which will be for the most part familiar to our readers, had been invited by Victoria University to be present, walked slowly up the body of the Hall to the strains of one of the finest organs in the world and took their seats upon the platform. The following is the official list of the procession, and but very few of those invited failed to be present, a fact which, when the serious nature of the daily work of many of these gentlemen is remembered, makes it manifest that there must have been a general feeling abroad that the occasion was one of more than ordinary significance. All the members of the procession were in full academic attire, and the prevailing hue of scarlet signifying the doctorate of science or medicine was gorgeously diversified by hoods and facings of every tint. The procession was headed by the Vice-Presidents of University College, Liverpool, Mr. W. Rathbone and Mr. Edward Lawrence, after whom came the following in order:—

The College Council.—Mr. Alsop, Canon Armour, Mr. A. Booth, Mr. R. Gladstone, Mr. C. W. Jones, Mr. E. K. Muspratt, Mr. George Rathbone, Sir Edward Russell, and Mr. A. F. Warr, M.P.
The Registrar.—Dr. Londini.
The Chairman of the School of Commerce.—Mr. P. E. J. Hemelryk.
The Chairman of the School of Architecture.—Mr. Hartley.
The Chairman of the Board of Legal Studies.—Vice-Chancellor Hall, Q.C.
Honorary Members of the Staff.—Dr. Lloyd, Mr. Parker, Dr. Dickinson, Dr. Nevins, and Dr. Waters.
Emeritus Professors.—Professor Mitchell Banks, Professor Caton, and Professor Davidson.
Guests.—Professor Dunstan, Mr. P. M. Smith, Professor Kauffmann, Mr. A. Cope, Mr. Bokenham, Professor Thompson, Professor Vaughan Harley, Mr. James Ritchie, Professor Oliver, Dr. Leonard Hill, Professor Meldola, Professor Bower, Mr. Ballance, Mr. Stiles, Professor Rose Bradford, Professor Finney, Professor Murray, Dr. Noel Paton, Professor Allen, Mr. W. Thorburn, Dr. Sims Woodhead, Professor Poulton, Dr. Mott, Dr. Isambard Owen, Dr. W. Hunter, Dr. S. Sprigge, Professor Marshall Ward, Mr. Makins, Dr. Dawson Williams, Professor Purser, Professor Coats, Dr. Pavy, Dr. Ferrier, Dr. Copeman, Professor Cunningham, Mr. Scott Keltie, Dr. Saundby, Professor Hamilton, Dr. Bastian, Sir Henry Littlejohn, Professor Schäfer, Professor Forsyth, Mr. W. F. Lawrence, M.P., Dr. Gaskell, the Mayor of Birkenhead, Sir R. Thorne Thorne, the Mayor of Bootle, the Mayor of Preston, Mr. Ashton Bostock, Professor Rücker, Mr. A. T. Bentley, Professor T. R. Fraser, President of the Medical Institution of Liverpool (Dr. Macfie Campbell), Dr. Bickersteth, Professor Waller, Professor Crookshank, Professor Yeo, Professor Kanthack, Principal Lloyd Morgan, Principal Heath, Principal Reichel, Sir James Russell, Dr. Isaac Roberts, Mr. Alfred Waterhouse, R.A., Mr. G. Rodie Thompson, Mr. Heywood Thompson, Professor Rutherford, Dr. Lauder Brunton, Mr. R. D. Holt, Dr. Rendall, Mr. Justice Kennedy, the Vice-Chancellor of Cambridge University (Dr. A. Hill), Sir J. Crichton Browne, Captain Abney, Sir D. Calton, Professor Gotch, Sir A. Geikie, Sir W. Gairdner, Mr. E. P. Thompson, the President of the Royal College of Surgeons of Edinburgh (Professor John Chiene), Lord Kelvin, the President of the Royal College of Physicians of Edinburgh (Sir J. Batty Tuke), the Bishop of Carlisle, Sir William Turner, Professor Michael Foster, the Bishop of Chester, Mr. R. B. Haldane, the Bishop of Liverpool, Professor Burdon Sanderson, the President of the Royal College of Physicians of London (Sir S. Wilks), and Professor Virchow.
Assistant Lecturers and Demonstrators of University College.—Dr. Abram, Dr. Armour, Dr. Buchanan, Mr. Cole, Mr. Douglas Crawford, Dr. R. C. Dun, Dr. Grünbaum, Mr. A. G. Gullan, Mr. C. E. Jones, Dr. Hugh R. Jones, Mr. Lovegrove, Dr. Manby, Mr. Marsden, Mr. Nelson, Dr. Stockdale, Mr. Stratton, Mr. Thelwall Thomas, Dr. Titherley, Dr. A. J. Wallace, Dr. Warrington, and Mr. Woods.
College Lecturers.—Dr. Barr, Mr. Councell, and Mr. Phillips.
The Librarian of the College.—Mr. Sampson; after whom walked a group of University graduates of less than three years' standing.
Convocation.—Mr. Stuart, Miss Marsland, Mrs. Brown, Mr. Hardwick, Miss Broadbent, Miss Sandford, Mr. W. E. Livsey, Mr. Lackland, Mr. J. Jones, Mr. Clubb, Mr. Winstanley, Mr. O'Hagan, Mr. W. E. Hoyle, Mr. W. P. Steinthal, Miss Ellis, Dr. Coutts, Miss Auld, Mr. F. E. Taylor, Dr. J. H. Shaw, Miss Roper, Mr. J. C. Quinn, and the Rev. C. C. Lundie, Mr. A. Carey, Miss Buckley, Dr. Martin, Dr. Gilbody, Dr. Kelynack, Miss Crompton, Mrs. Ashburner, Mr. C. T. Needham, Mr. A. Schloesser, Mr. Willis, Mr. Charles Hughes, Dr. Pierce, Rev. C. T. Poynting, Dr. Rayner, Mr. J. H. Thompson, Mr. W. R. Innes, Miss C. D. Tennant, Dr. Gerland, and Mrs. Tout.
University Lecturers.—Mr. O. Elton, Dr. Friedel, Mr. Hebblethwaite, Mr. Woodward, Mr. Gwyther, Dr. T. L. Bailey, Mr. Hay, Dr. Howard, Dr. Kohn, Mr. Sharpe, Mr. Stanton, Mr. Owen, Mr. Edgar Browne, Dr. Peter Davidson, Dr. Wiglesworth, Dr. Campbell, Dr. Hellier, Mr. Ward, and Dr. Hiles.
Professors.—Faculty of Arts: Professors Alexander, Davies, Gonner, MacCunn, Mackay, Meyer, Raleigh, Simpson, and Strong. Faculty of Science: Professors Core, Dixon, Hickson, Lamb, Campbell Brown, Carey, Harvey Gibson, Hele-Shaw, Herdman, Lodge, and Beaumont. Faculty of Law: Professor Emmott. Faculty of Medicine: Professors Delépine, Dreschfeld, Jones, Leech, Dixon Mann, Sinclair, Stirling, Young, Carter, Glynn, Hope, Rushton Parker, Paterson, Paul, De Burgh Birch, Hartley, Trevelyan, Wright, Boyce, and Sherrington.
External Examiners.—Professors J. Reynolds Green, Halliburton, and S. Martin, Mr. Bilton Pollard, Professors Symington and Walker.
University Court.—Miss Cook, Mr. N. Clegg, Mr. W. Mather, Rev. J. Sephton, and Sir Francis Powell.
The Chairman of the Board of Studies.—Professor Tout.
The Principal of Owens College.—Mr. Alfred Hopkinson.
The Principal of University College.—Mr. R. T. Glazebrook.
The Vice-Chancellor of Victoria University.—Principal Bolington.
The Pro-Vice-Chancellor.—Professor Wilkins.

Immediately behind the Pro-Vice-Chancellor came Lord Lister in the robes of his new degree, followed by the stately

figure of Earl Spencer in the blue and gold of his official position as Chancellor of the Victoria University.

The Registrar, Mr. Alfred Hughes, brought up the rear.

Lord SPENCER opened the proceedings in a dignified and sensible speech. He recalled briefly the benefactions which University College, Liverpool, had received during its comparatively short life from Liverpool men and referred to Mr. Thompson-Yates's splendid munificence as "putting a magnificent crown in a magnificent manner upon the proceedings of his fellow citizens." Coming then to the particular purpose for which the assembly was present in St. George's Hall—namely, the admission of Lord Lister to the degree of Doctor of Science of the Victoria University—Lord Spencer held that it would be unbecoming in him to enlarge upon the merits of the President of the Royal Society, particularly as the gentleman who would shortly introduce his lordship to receive his degree would necessarily allude to his great public and scientific claims, but, he concluded, "we of the Victoria University feel with one of the most distinguished men of science in the world, Professor Virchow, that in saluting Lord Lister with enthusiasm we are honouring a man whose career has been one of conspicuous glory here and all over the world."

Dr. CATON, Emeritus Professor of Physiology in University College, Liverpool, and late Dean of the Medical Faculty, then pronounced an eloquent panegyric upon Lord Lister's work. "Possessing a heart and mind," he said, "full of sympathy, benevolence, and humanity, our visitor of to-day, from an early period of his career as a surgeon, witnessed with pain and sorrow the mortality and suffering which was wont to attend surgical injury and disease in man and no less in the lower animals. He determined to devote his life to an inquiry into the causes of this suffering and mortality and brought to his task scientific abilities and knowledge of the highest order, and in particular a profound acquaintance with the work of Pasteur, the great French observer. After long years of patience and conflict with difficulties he was privileged, not only to discover the cause of all this suffering, but also the remedy. To-day there is not a hospital in the civilised world which has not been transformed through Lord Lister's teaching and in which death and suffering have not been to a very large extent banished. To-day there is not a case of serious surgical disease or surgical operation in man or woman in any rank of life, or even among the lower animals, in which Lord Lister's work has not diminished the liability to suffering and death. The work of Lord Lister is of extraordinary value in time of war. The field and base hospitals for the wounded were in former times the scene of a mortality from septic fever far greater than that occurring in the field. But how is it now? The Director-General of the Royal Army Medical Corps has recently said that during and after the recent war in the North-West Provinces of India not one single case of septic fever occurred. Formerly as many as one-half of the wounded succumbed to this cause. Lord Lister has doubled the utility of the work of the surgeon and lightened the burden of pain and death. Work of this order is far above recompense or reward; the nobility of such a life is for us to imitate rather than to praise. But still the court and council of our University desire to confer on Lord Lister the degree of doctor of science, in recognition of the fact that never has science been more nobly enlisted in the cause of humanity and of human progress than in the work of his life."

Lord LISTER was then formally presented to the Chancellor amidst loud and prolonged applause and signed the roll of the Victoria University.

Mr. R. T. GLAZEBROOK, the recently appointed Principal of University College, then made a brief statement concerning the new laboratories, the opening of which was the primary object of Lord Lister's visit to Liverpool. Mr. Thompson-Yates, he said, came forward in 1894, when it was clear that the work of the professors of physiology and pathology, whose chairs had already been endowed by the generosity of the late Mr. George Holt, was being seriously hampered for want of rooms in which to lecture and laboratories in which to work. He then offered to build the laboratories and theatres. The structure cost £18,000. A second gift was made immediately afterwards of £6000 for furnishing the building and a final gift rapidly followed of £4000 for apparatus, the noble sum of £28,000 in all. Principal Glazebrook concluded, amidst applause, by reminding his audience that there was still scope for their generosity in many directions, and his words had all the more weight from the fact that he was able to speak not only as Principal of the College but as a late assistant director of the Cavendish Laboratory at Cambridge.

LORD LISTER'S ADDRESS.

Lord LISTER then read the following brief address:—

My Lord Chancellor, my Lord Mayor, my lords, ladies, and gentlemen,—When I was honoured by the authorities of the Liverpool College with the request that I would open the Thompson-Yates Laboratories I little imagined that I was asked to take part in so imposing a ceremonial as the present. That it should have attracted so large and brilliant a company seems to me a matter of great importance, full of good augury for the future of the scientific practice of the healing art; in other words, of treatment based on real knowledge as contrasted with the blind gropings of empiricism. We have before us to-day evidence that the cultured sections of the British public are alive to the necessity of providing adequate means for the practical study of the knowledge which confers the power to recognise and treat disease. If an engineer is to qualify himself for detecting and correcting anything wrong in a machine of human construction no verbal description or drawings will give him the requisite information; he must see and handle the details of the mechanism and watch them at work. And it might seem the veriest common sense that the more practically familiar a man is with the structure and working of that marvellously complicated mechanism, the human body, the better fitted will he be to deal with its disorders. Yet, obvious as this is, it is only in recent periods that its truth has been generally recognised. I am old enough to remember the years before the passing of the Anatomy Act, and I recollect being told as a child of the fiendish deeds of Burke and Hare—horrors which, it would appear, were needed to arouse a prejudiced and apathetic public to the imperious necessity of making it legally permissible for the intending surgeon to become acquainted in the only possible way—i.e., by dissection—with the sacred structures which he would be called upon to invade with his knife. A dissecting-room well provided with the needful material for study has since been an essential equipment of every medical school, and a thorough course of dissection is demanded of every medical student. Meanwhile, another kind of anatomy than that which the scalpel displays has come into being—the anatomy which the microscope has revealed and is revealing. This microscopic anatomy, both of healthy and of diseased structures, has assumed the greatest importance and requires special provision for its successful study. The materials to be studied cannot well be obtained by the student in his lodgings, and the processes involved in the study are often of a complicated character which he cannot learn unaided and which require more costly apparatus than he can provide. The requisite facilities for this work will be amply supplied by the laboratories which are to be opened to-day. The necessity for special pathological institutions has long been recognised on the Continent, and nowhere has such an establishment been conducted with more signal success than in the Pathological Institute of Berlin, which has been presided over for many long years by the illustrious man whom Liverpool is, I am sure, as glad to welcome with reverence as London has been. Many present to-day have sat at the feet of Professor Virchow, but we may fairly anticipate that Liverpool students, at all events, will for the future be able to dispense with pilgrimages to Germany. While the minute anatomy of normal and morbid structures will be thus effectively taught in the new laboratories much may also be done in them to demonstrate and explain the actions of the living organism. I well remember the effect produced upon me, as a member of Dr. Sharpey's class in London, by the repetition before us of Bernard's great experiment on the local circulation. The sympathetic nerve in the neck of an animal being divided, the ear of that side instantly became red and hot and the blood-vessels turgid, while on the application of galvanism to the severed nerve the opposite effect immediately followed, the ear becoming white and cool and the vessels less conspicuous than those on the other side. Thus was impressed upon us, as mere oral teaching could hardly have done, the immensely important fact that the contractions of the arteries are as much under the control of the nervous system as are those of the muscles of a limb. I need, perhaps, hardly add that the animal being completely under an anæsthetic during such a demonstration no pain whatever is inflicted. In the study of the new science of bacteriology the pathological laboratory will render most

important service. The student will see with his own eyes by aid of the microscope the minute living beings which we now know to constitute the essential cause of many infectious diseases and he will learn to "cultivate" these microbes, which, while it will impress upon him the reality of their existence and the characters by which the various species may be recognised, will be invaluable as an exercise of the habits of accurate observation and manipulative skill. The new laboratories will also serve as a centre to which practitioners of a wide surrounding district may refer for the authoritative determination of the nature of doubtful specimens of diseased materials which they have neither the needful equipments, time, nor special knowledge to decide for themselves. As important as the services which the laboratories will render to the education and medical practice will be the opportunities which they will afford for research. I had occasion, in the address which I gave two years ago in this city, to refer to some of the benefits which have been secured to mankind by recent biological investigation, and I need not say more on the subject at present; but I would remark that every step in advance in science only opens up wider fields for exploring the infinite resources of nature, and these laboratories will afford ample means for the further prosecution of such beneficent inquiries. Some, perhaps, may be disposed to object to such researches because they involve the sacrifice of animal life. This, however, I need hardly remark, is as nothing compared to what occurs for the supply of food to man. Of animal suffering I need hardly speak because, in truth, the actual pain involved in these investigations is commonly of the most trifling description. Anæsthesia has come to the aid of experiment on animals and enables needful operations to be performed without disturbance from the struggles of the animal, while it affords to the operator the unspeakable comfort of knowing that he inflicts no pain. I am bound to add that antiseptic treatment of the wounds has had a similar doubly beneficial influence; by preventing inflammation it renders healing painless, while it leaves the parts uncomplicated by inflammatory changes and allows the results of operative procedure to be rightly estimated. I greatly surprised a former Chancellor of the Exchequer when, on a deputation to him on this subject, I explained to him that operations for the removal of parts of the brain of monkeys, which he had imagined to be attended with horrible torture, had, thanks to anæsthetics and antiseptics, been probably from first to last unattended with a twinge of pain. Such operations thus painlessly conducted have, by indicating the precise function of different parts of the organ and thus guiding the surgeon in his operations, already led to the saving of many human lives. While I deeply respect the humane feelings of those who object to this class of inquiry I assure them that if they knew the truth they would commend and not condemn them. The laboratories, though they will be formally opened to-day, have for some time been in practical operation, with the result that the Biological and Pathological School of Liverpool is ranking very high among similar institutions in other parts of the world. As an illustration I may mention the fact that a committee of the Royal Society, acting with the approval of the Secretary of State for the Colonies, has lately selected a pupil of this school as one of two men specially qualified to undertake investigations in Africa on the deadly malaria of those regions. I cannot conclude these remarks without congratulating the Liverpool College on the mighty addition which these laboratories afford to its powers for usefulness. I believe they may be pronounced, both in structure and equipment, equal to any in existence. I must also congratulate you on having so nobly generous a benefactor as Mr. Thompson-Yates. I trust he will be rewarded by the deep satisfaction of knowing that he is doing incalculable good to mankind. If I may make one more observation it is that while these institutions have been so nobly constructed and equipped there is yet much to be desired as regards the means for maintaining them in efficiency. And if any wealthy inhabitant of Liverpool is anxious to bestow his wealth in some manner calculated to do good to his fellow-men he could hardly do better than by devoting a portion of his resources to the permanent maintenance of these fine institutions.

The LORD MAYOR of LIVERPOOL (Mr. Alderman John Houlding), in the absence of the Earl of Derby through a family bereavement, then proposed a vote of thanks to Lord Lister for his address, which was seconded by Mr. WILLIAM RATHBONE and passed with acclamation.

THE OPENING OF THE LABORATORIES.

The proceedings in St. George's Hall terminated with a few words of graceful thanks from Lord Lister for the cordiality with which he had been received, and the company adjourned to University College for the opening of the laboratories. Most of the guests and official representatives of various public and scientific bodies elected to walk from St. George's Hall to the College in their full academic costume, and the outward signs of the doctorates of science and medicine formed a decidedly conspicuous picture in the streets and one which afforded considerable excitement to the citizens. The College being reached the formalities connected with the opening of the laboratories were commendably brief. Mr. Lawrence, a Vice-president of the College, presented Lord Lister with a gold key and asked him to unlock the door closing the main entrance to the building and declare it open. This being done the company made a tour of inspection of the laboratories, which have been described so recently in the columns of THE LANCET that nothing more need be said of them here save to register the opinion of all that in completeness and convenience they have not their superior in any centre of education. Tea and coffee were then served in the College to a very large concourse of guests who afterwards dispersed.

THE LORD MAYOR'S DINNER

The Lord Mayor of Liverpool entertained at dinner on Saturday evening Earl Spencer, K.G., the Chancellor of the Victoria University, Lord Lister, Professor Virchow, Lord Kelvin, Sir William Turner, Sir Samuel Wilks, Sir Richard Thorne, K.C.B., Sir William Gairdner, the Vice-Chancellor of Cambridge University (Dr. A. Hill), Mr. R. B. Haldane, Q.C., M.P., Professor Michael Foster, Principal Glazebrook, the Professors of University College, and a large number of Liverpool citizens and of the invited guests of the College.

After an admirable dinner and the drinking of the usual loyal toasts, which were submitted by the Lord Mayor, Mr. R. B. HALDANE proposed the toast of "The Victoria University." This he did in the happiest and most polished manner, his text being that whereas in the olden days the tendency of university education was to make those who had received it consider that a certain aloofness from less fortunate persons was a mark of culture, now it was perceived that refinement and sterility of result did not necessarily go hand-in-hand and that a university education was no less valuable as an education because it enabled the man who had received it to be useful in the arts and commerce of his country. It was out of this spirit, Mr. Haldane said, that the movements arose which had their practical result in the Victoria University, the splendid addition to the teaching resources of which they were this day met to celebrate.

Lord SPENCER, in a short reply, testified to Mr. Haldane's knowledge of the subject by recalling the fact that the speeches of the learned Member for Haddingtonshire were some of the best made in the House on the difficult question of the reform of the London University.

The toast of "Our Visitors" was then given by Mr. EDWARD LAWRENCE and responded to in suitable terms by Professor VIRCHOW and Sir WILLIAM TURNER, the former of whom, while modestly allowing that his own labours counted for something in recent developments of pathological knowledge, took occasion to refer in terms of the warmest admiration to the life-work of his "old friend of many years—Lord Lister."

Professor MICHAEL FOSTER, in a speech which was none the less serious in intent because the speaker occasionally allowed his humorous vein to come to the surface, then proposed "University College and the Thompson-Yates Laboratories." His words had for their general motive much the same as Mr. Haldane's words. He urged all interested in the welfare of University College to leave no stone unturned to continue the work of progress, and while he reminded them that the College was still but a young institution he congratulated them upon the vigour of its growth. He pronounced the new laboratories to be the most perfect which he had ever seen and confessed that the sight of them that day had produced "a double physiological effect upon me. They took my breath away and made my mouth water." He added, amidst general applause, that whereas it was a temptation to older men to think that only in times gone by were

there giants at Liverpool, the College possessed at the present moment scientific giants in the persons of Professor Sherrington and Professor Boyce, for whose special branches of work the new laboratories were designed, while of Principal Glazebrook, who had come from Cambridge during the last few months to be Principal of University College, he said that "in Cambridge he was always setting them straight, while in Liverpool he would only have to keep them straight," a great compliment to the high level of efficiency at which the College is working.

The proceedings terminated with replies from Principal GLAZEBROOK and Professor SHERRINGTON and a unanimous vote of thanks to the Lord Mayor for his hospitality.

RECEPTION BY THE LIVERPOOL MEDICAL INSTITUTION.

The President of the Liverpool Medical Institution, Dr. Macfie Campbell, started the social proceedings in association with the inauguration of the Thompson-Yates Laboratories by inviting the guests of University College who had assembled in Liverpool to the opening meeting of the session of the institution. Dr. Macfie Campbell delivered an interesting and learned presidential address upon the older medical writers, his remarks being well illustrated by a lantern demonstration. Supper followed, and then a merry and informal smoking concert. Among the gentlemen who gave their musical assistance may be mentioned Dr. Permewan and Professor Rutherford, whose appearance on the platform was the signal for much hearty applause. Dr. David Smart gave some happy imitations of well-known teachers and professors in the Edinburgh Medical School and elsewhere—a performance which was much appreciated.

SANITARY WORK IN THE PORT OF LONDON.

THE recently issued half-yearly report of Dr. W. Collingridge, medical officer of health for the Port of London, contains much interesting information relative to the work of his department for the six months from Jan. 1st to June 30th, 1898. During that period the sanitary officers visited 15,531 vessels of all classes, 9000 of which were lying in the river and 6000 in the various docks. There were 6762 visits made to vessels arriving from abroad and 8769 to those trading coastwise, and 21 sick seamen were referred to hospital. Of the total number of visits 13,901, or 84·28 per cent., were made to British vessels, Scandinavian being next in order of frequency with 1047, or 6·74 per cent. There were 303 structural alterations for improvement of sanitary conditions, affecting 281 vessels, carried out by order of the medical officers; these alterations in 33 cases were for the purpose of improving ventilation, 23 affected the storage of water, and 247 the arrangements for lighting and heating. A firm of shipowners having complained that it was vexatious for the Port of London Sanitary Authority to call upon shipowners to alter the internal fittings of a vessel after they have been passed by the Board of Trade, it was, in reply, pointed out to the complainants that the Board of Trade is not a sanitary authority and has but very limited powers for dealing with the sanitary arrangements of a vessel, their principal interest being in its safety. The control of sanitary arrangements is the duty of a sanitary authority, and the Board of Trade has no cognisance of the cases in which sanitary arrangements either are deliberately altered or fall into disrepair. During the half year 4876 vessels arriving from abroad were visited by the medical officers. Of these 586 were medically inspected, such inspection involving the individual examination of 2733 passengers and 6135 persons forming the crews of such vessels; 47 cases of infectious disease were discovered. The cases of infectious disease dealt with in the port included 10 of small-pox, 3 of scarlet fever, 30 of enteric fever, 3 of diphtheria, and 10 of measles. One of the cases of diphtheria was landed at the Port Sanitary Hospital from a Norwegian ship on March 13th, and Mr. Hancock, the medical officer who examined and removed the case, caught the infection and had to be removed to hospital on the following day. His attack, however, was comparatively mild. There were 39 cases admitted to the hospital during the half year—namely, 7 of small-pox (with 1 death), 1 of scarlet fever, 2 of diphtheria, 18 of enteric fever (with 1 death), and 11 of other diseases. The disinfecting apparatus was in use on 62 occasions for the treatment of 4101 articles. Reference is made in the report to the smoke nuisance caused by tugs and passenger boats in the river. Where distinct negligence was manifest proceedings were taken against the owners, and in some cases convictions were obtained, but owing to differences of opinion among magistrates and to an appeal to quarter sessions considerable difficulty has been experienced by the sanitary committee in their efforts to repress the nuisance. With reference to overcrowding, a Danish ship is mentioned which arrived in London with 39 passengers all berthed in a space measuring 29ft. by 9ft. by 6ft. 9in., giving roughly 45 cubic feet of air space for each. The floor space (clear of bunks) measured 80 square feet. It being impossible to deal satisfactorily in this country with such a serious offence, the matter was brought to the notice of the Government of the country to which the vessel belonged. The articles of food condemned and destroyed during the half-year amounted to a considerable total.

CALENDAR OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE annual Calendar has just been published by the Council of the College. It shows that there are 1195 Fellows on the roll of the College (as compared with 1191 last year), 1047 of whom obtained the Fellowship by examination, 17 were elected as Members of twenty years' standing under Section 5 of Cap. 15, Vict., 129 are Fellows by election, and 2 are *ad eundem* Fellows. There are 17,199 Members (against a total of 17,333 last year) and 574 Licentiates in Midwifery—the examination for this Licence having been discontinued since 1876. The Licentiates in Dental Surgery are stated to number 1283 (an increase of 97 over last year) and the Diplomates in Public Health to number 306.

During the past collegiate year only 3 candidates presented themselves in elementary physiology, all of whom passed. 415 candidates presented themselves in elementary biology, of whom 282 passed and 133 were referred. Of 435 candidates who presented themselves in chemistry, 263 passed and 172 were referred; in materia medica, of 81 candidates, 44 passed and 37 were referred; in practical pharmacy, of 281 candidates, 207 passed and 74 were referred. The proportion of the fees paid by candidates for these examinations receivable by the College amounted to £1882 13*s*., the examiners elected by the College receiving £210. The examiners in elementary biology are appointed by the Council of the College, those in elementary physiology in conjunction with the Royal College of Physicians of London, and those in chemistry, materia medica and practical pharmacy by the Royal College of Physicians of London under the scheme for an Examining Board in England.

The examiners in anatomy and physiology for the Second Examination are appointed in conjunction with the Royal College of Physicians of London; they have conducted the Primary Examination under the Old Regulations as well as the Second Examination of the Examining Board. 639 candidates presented themselves for examination in anatomy, of whom 345 passed and 294 were referred. 638 presented themselves in physiology, 341 of whom passed and 297 were referred. The proportion of fees paid by candidates to the College for these examinations amounted to £2889 1*s*. 6*d*., of which the examiners received £1046 14*s*. 8*d*.

The Board of Examiners in anatomy and physiology for the diploma of Fellow, elected annually by the Council of the College, held two meetings for the examinations of 181 candidates, of whom 65 passed whilst 116 were referred. The fees paid by candidates amounted to £1181 5*s*., of which the Board of Examiners received £724.

The Court of Examiners, 10 in number, are elected by the Council from the Fellows of the College for a period of five years. They conduct the Third or Final Examination in surgery of the Examining Board in England as well as the Second or Final Examination for the diploma of Member under the Old Regulations and the Pass or Final Examination for the diploma of Fellow. During the past collegiate year the Court held two examinations for the Fellowship and four for the Membership. At the former there were 81 candidates, 42 of whom passed; 28 were referred for six months and

11 for one year. For the Membership 781 candidates presented themselves in surgery, of whom 463 passed and 318 were referred. The fees paid by candidates for these examinations amounted to £9325 14*s.* 6*d.* and the fees paid to the Court of Examiners and the examiners in midwifery amounted to £4980 10*s.* The examiners in medicine under the scheme for an Examining Board in England are elected by the Royal College of Physicians of London. Of 709 candidates who presented themselves 464 passed and 245 were referred. The examiners in midwifery are appointed in conjunction with the Royal College of Physicians of London and have examined 893 candidates, of whom 547 passed and 346 were referred.

The Board of Examiners in dental surgery, under the Old Regulations, have held two meetings for the examination of 142 candidates, 100 of whom received the licence and 42 were referred. The fees received from candidates amounted to £1050, of which the examiners received £596 8*s.* Under the new regulations in preliminary science one examination has been held at which 2 candidates presented themselves, of whom 1 passed and 1 was referred. (This examination is identical with Part I. of the First Examination of the Examining Board in England and is conducted by the chemistry examiners appointed under the scheme.) The fees received for the examination amounted to £6 6*s.*, of which the examiners received £1 10*s.*

The examiners in public health appointed in conjunction with the Royal College of Physicians of London examined 39 candidates in Part I., 26 of whom passed and 13 were referred; in Part II., of 37 candidates 28 received their diploma and 9 were referred. The fees received by the College for both parts of the examination amounted to £180 1*s.* 6*d.* and the amount paid to the examiners to £114.

With regard to the finances of the College it appears that the income from all sources amounted to £26,613 12*s.* 5*d.*, the largest item being derived from the fees paid by candidates for the diploma of the College—viz., £16,515 1*s.* 6*d.*; the next largest being dividends on the Erasmus Wilson bequest, £4915 2*s.* 8*d.*; investments, £836 16*s.* 10*d.*; rent from chambers adjoining the College produce £750; hire of rooms, sale of questions, &c., at the Examination Hall, £683 18*s.* 2*d.*; incidental receipts at the College, £38 18*s.* 9*d.*; receipts from trust funds, £290 14*s.* 5*d.*; dividends from sinking fund for Savoy Estate, £8 2*s.* 2*d.*; fees retained for candidates, £488 5*s.*; expenses repayable by Metropolitan Asylums Board, £295 17*s.* 10*d.*; balance at Midsummer day, 1897 (including half balance of Goldsmiths' Company grant), £1790 15*s.* 1*d.*

The expenses for the year amounted to £25,406 7*s.* 9*d.*, leaving a balance at the bank and in hand at Midsummer day, 1898, of £1207 4*s.* 8*d.*, the largest item being (as in the receipts) in connexion with the examinations—viz., examiners' fees, £7673 2*s.* 8*d.*; half expenses of Examination Hall for the purposes of the examinations, £4029 3*s.* 8*d.* (this amount includes rent, rates, taxes, and insurances, which absorbs the no small amount of £2097 9*s.* 8*d.*); expenses of Fellowship and dental examinations, £400 18*s.* 1*d.*; expenses of public health examination, £36 4*s.*; half expenses of the Scientific Research Laboratories on Victoria Embankment amount to £728 19*s.* 5*d.* (this amount does not include any part of the rent, rates, taxes, insurance, fuel, or light). At the College rates, taxes, and insurance stand at £1300 6*s.* 8*d.*; extraordinary expenses—i.e., reconstructing lift to museum workrooms, College dinner, restoration of pictures, &c., £451 16*s.* 11*d.*; repairs to museum, conservator's house, &c., £928 8*s.* 7*d.*; fees to members of Council, £269 17*s.*; stationery, printing, postage, &c., £380 11*s.* 4*d.*; law expenses, £393 2*s.* 11*d.*; salaries, wages, and pensions in the three departments—Museum, Library, and College, £4604 19*s.* 11*d.*; lectures, catalogues, specimens, &c., for museum, £431 10*s.* 2*d.*; purchase and binding of books, &c., for the library, £791 17*s.* 2*d.*; trust funds, £208 3*s.* 8*d.*; purchase of stock, £1293 5*s.* 5*d.*; fees returned to candidates, £294; Metropolitan Asylums Board, repayable, £240 0*s.* 2*d.*; disbursement of Goldsmiths' Research Grant, £78 8*s.*; half balance of Goldsmiths' Grant retained at the Examination Hall, £145 6*s.* 5*d.*; printing calendar, fuel, and light and miscellaneous items, £726 5*s.* 7*d.*

The Secretary's report contains an abstract of the work done by the Council and committees, the Committee of Management of the two Royal Colleges, the Research Laboratories on Victoria Embankment, also reports of meetings of Fellows and Members, elections, &c. From the annual report of the finance committee we find that the gross income of the College for the past year is £1601 less than the gross income of the previous year. As in the previous year the decrease is due to a falling off in the receipts from examinations of the combined Examining Board. Under this head there is a decrease of £50 on the first examination, of £312 on the second, of £502 on the third, and of £433 on the diploma fees paid by University candidates, a total decrease on these examinations of £1297. The amount of the receipts from examinations must not, however, be taken as an index to the number of candidates examined. There have been 65 fewer admissions to the examinations in anatomy, 61 fewer to the examination in physiology, and 42 fewer to the examination in midwifery, but there have been 24 more admissions to the examination in elementary biology, while the number of admissions to the examination in surgery is exactly the same each year. It will be seen that while the receipts on the First Examination are less the number of admissions to that examination has actually been greater. The receipts from the Fellowship examinations are £141 less and those from the dental £27 more than in the previous year. The expenditure of the College for the past year is £266 less than the previous year. The amount expended in fees to the examiners under the Combined Examining Board is only £125 less than in the previous year. As the examiners are paid a capitation fee for the number of candidates examined the small difference in the expenditure under this head for the two years shows that the large decrease in the receipts has arisen not so much from a corresponding decrease in the number of candidates as from the fact that the fees paid by them are not distributed over each year proportionately to the number of examinations for which they enter—e.g., a candidate may in one year pay the whole fee for medicine, surgery, and midwifery, being only examined in one subject that year, and may consequently in the next year be examined in the other two subjects without paying any fee. There is little difference in the expenditure at the Examination Hall and at the laboratories, that at the former being slightly less and that at the latter slightly greater than in the previous year. As regards the expenditure at the College in Lincoln's Inn-fields, there is a decrease of £45 in the special expenses of the museum and of £69 in the special expenses of the library. The expenditure on books is larger than it has been for some years, but this is more than counterbalanced by the reduction under salaries and wages. In the case of the general expenses several causes have contributed to make the total under this head an exceptionally high one. In the first place the petition of the College for exemption from payment of corporation duty has been accountable for an increase of some £360 in the law expenses of the College. Secondly, a sum of £200 has been expended upon the redecoration of the conservator's house, an outlay not likely to occur more than once in seven years. Thirdly, there has been an expenditure of £364 upon structural repairs of an extensive character to the part of the museum building abutting upon Portugal-street. In addition to these exceptional expenses the lift to the museum work-rooms has during the year been reconstructed and connected with the mains of the London Hydraulic Power Company at a cost of £260. The balance on the "income and expenditure" account amounts this year to £683, and has not been so small for some years past. It will, however, be seen that the exceptional expenses mentioned by the committee amount to £1184 and when this is borne in mind the net result of the year can hardly be considered other than satisfactory.

From the report of Dr. G. Sims Woodhead, the Director of the Research Laboratories of the two Royal Colleges, it appears that on June 3rd the number of those working or having received permission to work in the laboratories during the past year was 18.

The preparation of antitoxic serum for the treatment of cases of diphtheria in the hospitals of the Metropolitan Asylums Board has been carried out during the year and arrangements have been entered into whereby the director has been relieved of much of the routine work and much better accommodation has been obtained for the horses under treatment; so successful has the new method of preparation been that at the present time the average strength of the serum (i.e., a mixture of the sera of the horses now in use) is 375 antitoxin units per c.c.

The grant entrusted to the committee by the Goldsmiths' Company is still being administered for the furtherance of

the antitoxin treatment of diphtheria. Special apparatus for use by Dr. Brodie, Dr. Cartwright Wood, and the Director, has been purchased, and several important results have been obtained therewith. During the year special attention has been paid to the question of the standardisation of antitoxin. As a result of a careful study of the various methods which have from time to time been recommended, first in connexion with a special committee the work of which was carried out in the laboratories and then in connexion with Professor Ehrlich at the Government testing stations in Steglitz, Berlin, the Director decided to use only Ehrlich's new method, a report of which has already appeared in THE LANCET.[1] In order to facilitate the testing of anti-diphtheria serums in this country the laboratories committee authorised the Director to make arrangements for the testing of any serum sent for examination. It is satisfactory to note that two firms have availed themselves of this privilege and that all the samples of serum sent for examination have proved to be of excellent strength and quality. In fulfilment of one of the conditions of the grant from the Goldsmiths' Company that diphtheria antitoxin should, if possible, be available for use among the poorer classes of the community, antitoxic serum has been supplied to various general and children's hospitals in London during the past year, as well as to certain medical practitioners for cases fulfilling the necessary conditions. In this way 2003 doses containing 4,267,000 units have been distributed.

THE HEALTH OFFICER'S REPORT FOR THE PORT OF BOMBAY FOR 1897.

THE annual report of the Health Officer of the Port of Bombay for the year 1897, published as an appendix to the Report of the Sanitary Commissioner with the Government of Bombay for that year, shows what a vast amount of labour and care has been taken in regard to the inspection of the shipping and persons leaving that port, more especially in connexion with the epidemic prevalence of plague. To begin with, many reports have been written on the Bombay plague, but so far it has not been proved conclusively whence Bombay received the disease. Some say it was imported from China, while others affirm that it came from the slopes of the Himalayas. The acting health officer of the port, Major J. Crimmin, V.C., pertinently remarks that it seems to have escaped notice that plague is endemic in the Persian Gulf and the Red Sea coast—places much nearer home than China—and that quarantine is imposed by Egypt and Aden almost yearly against that part of the Red Sea coast between Leith and Lohaya and known as Assyr. On reference to the records it will be found that plague was epidemic in Assyr in October, 1893, July, 1894, August, 1895, and October, 1896.

The organisation for the medical inspection of all vessels and persons leaving Bombay by sea has been already described in detail in a special report by Lieutenant-Colonel MacCartie, M.B. Dub., C.I.E., in an appendix to the official account of the plague administration in the Bombay Presidency for 1897, and the acting health officer draws upon this document in his brief account of the harbour operations. As indicative of the extent of these inspections and the enormous amount of labour entailed it may be stated that the total combined results of the inward and outward inspections as well as those in the harbour show altogether that 72,752 vessels of all sorts were inspected, 1,313,117 seamen and passengers were examined and 169 cases of plague were discovered.

As regards, however, the outward inspections in connexion with plague it should be mentioned that during the earlier part of the epidemic and up to Feb. 6th, 1897, only vessels and persons bound for European and other quarantine ports were inspected. As an exodus of the plague-stricken population of the city had set in Government decided to have an examination of every vessel and native craft as well as of every crew and passenger leaving Bombay by sea for anywhere. These wholesale inspections commenced on Feb. 6th. It is, of course, impossible to gauge with any accuracy what is the exact value to be attached to any system of medical inspection as a preventative to the spread of disease. It cannot discover the disease in its incubating stage, but it can remove all suspicious cases from a vessel, and this appears to have been done. That the work was onerous enough appears from the fact that upwards of 40,000 vessels, including native craft, were inspected and a total of over 700,000 outward bound seamen and passengers were examined. The inspection had to be of a rigid and very thorough kind, the objects aimed at being the prevention of the spread of plague by sea to other Indian ports, to ports outside India, and above all to Europe, with its incalculable effects on Indian commerce.

Too much publicity cannot be claimed for the efforts made in Bombay to confine the plague within its own borders and to prevent any plague export. The description given by the Indian delegate at the Venice Convention of the searching nature of the measures followed out was received with "satisfaction mingled with incredulity"; but the description was absolutely correct, and a medical officer of the Italian Government who had been sent to Bombay to report on the measures taken there expressed, we are told, his surprise on the evidence of his own eyes at the completeness of the inspection system pursued. It may be added that in all cases where plague developed among people who had been rejected from a ship a telegram was sent to the next port of arrival warning the authorities there that a case of plague had been removed from the vessel. The two ocean-going steamers mentioned as plague-infected were the s.s. *Pekin*, which left Bombay with 1045 pilgrims for Jeddah on Dec. 28th, 1896, and the hired Government transport s.s. *Dilwara*, which left Bombay for Southampton on March 10th with 172 crew and 1063 passengers. The pilgrims in the *Pekin* had been in Bombay and living for weeks in a plague-infected locality, and all things considered it is wonderful that more cases did not occur.

No one who knows anything of the hard and monotonous and often nauseating drudgery connected with such inspections can fail to appreciate the amount and disagreeable nature of the work which fell on the medical staff and establishment of the port, and they are to be congratulated on the ability, tact, and success with which it was performed. We are compelled to pass over a great portion of Major Crimmin's narrative and details. It must suffice to say that, in our opinion, it is an excellent and interesting document.

MEDICAL UNION IN EAST LONDON.

THE East Suburban Medical Protection Society, Limited, have held their first general meeting since the registration and legal constitution of this newly formed medical union. The members assembled at the West Ham Hospital on Oct. 6th and included representatives from Leytonstone, West am, Tidal Basin, Romford-road, Walthamstow, Stepney, Ilford, Forest Gate, Barking-road, Leyton, Custom House, Plaistow, Romford, Dalston, Bow, &c.

The President, Dr. Frederick Smith, senior assistant physician at the London Hospital, occupied the chair. After the minutes of the first statutory meeting had been read and confirmed the quarterly report of the Executive Council was presented. It showed that four council meetings had been held during the quarter and that the scheme for debt collecting had been practically applied to the material benefit of several members of the society. In regard to the Plaistow Maternity Home, the position of the society in relation with this institution had been the subject of a carefully-prepared report which showed that the organised members of the profession proposed two reforms. First, the abolition of all maternity fees, and, secondly, that the medical profession should be adequately represented upon the governing body of the maternity. It was further explained that solicitors and standing counsel had been appointed to act for the society in all matters for which legal aid and advice were required. The chairman commented at length on this report and together with the treasurer's report it was unanimously approved by the meeting. The chairman then referred in grateful terms to the aid the society had obtained from THE LANCET and spoke in complimentary terms of the energy

[1] THE LANCET, Oct. 23rd, 1897, p. 1071

and enterprise shown in the endeavour to collect in all parts of the country useful evidence as to the position of the medical profession.

THE MEDICAL SCHOOLS.

London Hospital.—The annual dinner of the old students of the London Hospital was held at the Medical College Library on Monday evening last, when there was a large attendance under the chairmanship of Mr. C. W. Mansell Moullin. After the usual toasts Mr. Moullin proposed the health of the London Hospital and its medical school, and in a few eloquent words spoke of the great improvements which are being at the present time carried out at this great institution of the East-end. On behalf of the House Committee of the hospital Mr. W. Douro Hoare (chairman of the College Board) replied and explained to those assembled that the first work to be undertaken would be the rebuilding of the operating theatres and the rearrangement of the two wards in the centre block. This work will be begun as soon as ever the temporary wards for 96 beds—which are being erected in the garden—are completed. Plans for these new theatres have been most carefully developed, and as no expense will be spared the most perfect arrangement of theatres possible is aimed at. Mr. Hoare concluded with a few cordial remarks on the pleasant relations existing between the House Committee and the medical staff of the London Hospital. On behalf of the medical staff Dr. Stephen Mackenzie (senior physician) replied and expressed the obligation under which the staff considered themselves to be to the governors of the hospital for the great liberality with which it had been decided to improve the hospital and to give scope for the teaching for which there is such abundant and excellent clinical material. Dr. Sansom proposed the health of the chairman, who suitably replied. Amongst those who were present were Mr. Carr-Gomm (a former chairman of the House Committee), Mr. Brudenell Carter, Mr. Hurry Fenwick, Dr. Herman, and other members of the staff and of the House Committee.

St. Bartholomew's Hospital and College.—The entrance scholarships have been awarded as follows:—Junior Scholarship in Chemistry, Physics, and Biology (value £150): C. C. Robinson and J. Burfield (equal). Senior Scholarship in Biology and Physiology (value £75): L. J. Picton. Preliminary Scientific Exhibition in Chemistry, Physics, and Biology (value £50): H. F. Forster. Jeaffreson Exhibition in Latin, Mathematics, &c.: T. Jefferson Faulder. Shuter Scholarship in Anatomy, Physiology, and Pharmaceutical Chemistry (value £50): F. C. Shrubsall.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Durham County Sanitary District.—Dr. Eustace Hill has now the satisfaction of being able to report that all the sanitary authorities throughout the county have adopted the Infectious Diseases Notification Act and we congratulate him on the success of his efforts. The estimated population of the county at the middle of 1897 was 786,400 and the general death-rate was 16·8 per 1000. The death-rate for the six boroughs was, it is of interest to note, considerably lower than that of the other urban districts in the county. There was a marked decrease on former years in the death-rate from zymotic diseases, and certainly one of the most hopeful signs for the future is the fact that there has been a considerable reduction in the mortality from enteric fever. Durham, as our readers are probably aware, has for many years enjoyed an unenviable notoriety for its enteric fever death-rate. Dr. Hill regards the decrease recorded as in the main due to the abolition of a large number of privy middens and the carrying out of other improvements making for the purification of polluted soil. The only isolation hospital erected in the county during 1897 was a "temporary" iron structure, but the Local Government Board constituted a joint hospital board, and in other instances sites have been procured. Important progress was made during the year in the matter of water-supply and purification in certain parts of the county, and much improvement was effected in the housing of the working-class population. But little was done in 1897 towards the prevention of river pollution, and Dr. Hill hopes that, as a result of the present Commission on Sewage Disposal Methods, the Local Government Board will be able to dispense with the use of land in cases where biological methods are to be carried out. With regard to dairies, cowsheds, and milkshops Dr. Hill reports that absolutely no precautions are taken in the county to guard against the consumption of milk from tuberculous cows, and he trusts, as do we all, that the recommendations of the recent Royal Commission on the subject will soon be embodied in a Government Bill. The inspection of factories and workshops seems to be a dead letter in the county of Durham, but in the direction of new by-laws there has of late been much activity manifest.

Essex County District.—The population of this county is increasing very rapidly and it was estimated to the middle of 1897 at close upon 700,000. Dr. Thresh thinks that at the next census Essex may be found to have developed at a greater rate than any other county in the country. Much attention was given during 1897 to the important question of water-supply in the several districts of the county, chemical and bacteriological examinations being made more frequently than heretofore. We are glad to see, too, that in their zeal to have the water tested many of the sanitary authorities have not overlooked the necessity of examining the areas or localities from which the supplies are derived. Dr. Thresh is evidently getting somewhat anxious as to the future water-supply of the county. The London clay, which in most parts of the county overlies the chalk, is, Dr. Thresh tells us, being pierced in all directions by deep wells, and he anticipates that this will soon result in a considerable and permanent lowering of the water level. When this is brought about there is danger, he thinks, that the character of the deep well water hereabouts may be materially altered by its being impregnated with sea water through the agency of the outcrops of chalk under the Thames and perhaps in the German Ocean. The water at present yielded by the deep wells varies materially in character in different parts of the county. On the north, towards the outcrop, it is hard and a characteristic chalk water. As, however, the distance from the outcrop increases the water becomes soft and contains much salt and carbonate of soda. Near the coast and tidal river some of the deep wells yield brackish water. Dr. Thresh is carefully pursuing this interesting subject by making analyses of water from the chalk wells in the county and collecting sections showing the thickness of the overlying ground and London clay in the several parts of the county.

St. Pancras Sanitary District.—Dr. J. F. J. Sykes discusses in his annual report for 1897 the question as to whether or not patients suffering from diphtheria and enteric fever should be admitted into the general hospitals—a practice which still obtains in some London hospitals. With regard to diphtheria there is certainly, as Dr. Sykes remarks, a decided objection to treating cases of this disease in the general wards of a general hospital and, assuming that such cases are admitted at all, they should be treated in special isolation wards. As to enteric fever, however, Dr. Sykes thinks that there is a "considerable amount of leading opinion that cases of this disease should be treated in the general wards of a general hospital." We should hardly be prepared to go all the way with Dr. Sykes in this last statement, although there are certainly still many who believe that enteric fever may be treated without danger to other patients suffering from a different disease. Whatever may be the correct method of expressing the state of feeling existing upon this subject we must express our agreement with Dr. Sykes that the treatment of enteric fever side by side with cases of other diseases is, to say the least of it, undesirable, and this is much more the case when the same nurse attends enteric fever patients and others at the same time. Certainly, if this practice is carried on the importance of rigid regulations and of the strict enforcement thereof cannot, as Dr. Sykes observes, be too much insisted upon.

The Isle of Wight Rural District.—The most pressing necessity—in a sanitary sense—of this district, one of considerable area and of no little sanitary importance to the

large number of visitors who annually visit it, is isolation accommodation. We wonder if visitors thoroughly comprehend that in the greater part of this island there is no proper isolation provision wherein to isolate a case of scarlet fever or diphtheria which may perchance occur in a house or hotel in which they may be lodging. The rural district council are said by Dr. Joseph Groves, in his very complete report on this district, to have for the last twelve years regarded the provision of a hospital as a sanitary necessity, but, as far as we are able to gather, the efforts which they have made to carry into effect their conscientious scruples would seem to have been of a somewhat lukewarm nature. It is by no means clear that they are not glad to be possessed of some excuse to leave things in their present unsatisfactory state, and their medical officer of health may understand the neutral attitude of the members when he remarks, "After the expenditure of infinite labour and time through a long series of years you have declined as a sanitary authority solemnly charged with serious obligations to advance in this matter along the path of progress upon which you have entered." Clearly this district council prefer to waste time rather than to make a judicious investment; but we trust the time is coming when visitors before they take their children to a health resort, be it an urban or a rural one, will ascertain beforehand what manner of isolation accommodation exists in the locality.

Berkshire Combined Sanitary District.—Dr. W. T. G. Woodford in reporting upon this large area, which embraces 17 sanitary districts, has been at pains to contrast the mortality for the five years 1893-97 from the chief zymotic diseases, notifiable and non-notifiable, as illustrated by the 15 districts accepting notification, and the 2 districts, Maidenhead and Newbury urban, which reject it. The results are at least very suggestive. For the period in question the mean yearly death-rates from the chief zymotic diseases and from erysipelas were for the notifying districts 9·96 per 10,000, as against 22·22 per 10,000 for the non-notifying districts. It is true that the comparison is between 2 urban districts on the one side as against 13 rural and 2 urban districts on the other. But Dr. Woodford states that the general sanitary condition of the non-notifying districts is not below that of the rest of the combined district and he is inclined to regard the discrepancy as due to the control exercised over infectious diseases in the one case and the absence of such control in the other. The fact, too, that the difference is much more marked in the case of notifiable diseases than in non-notifiable diseases is in support of this view.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns 6532 births and 4408 deaths were registered during the week ending Oct. 8th. The annual rate of mortality in these towns, which had declined from 24·6 to 21·8 per 1000 in the four preceding weeks, further fell last week to 20·5. In London the rate was 13·8 per 1000, while it averaged 21·7 in the thirty-two provincial towns. The lowest rates in these towns were 12·2 in Croydon, 12·6 in Cardiff, 14·9 in Brighton, and 15·6 in Portsmouth; the highest rates were 27·5 in Norwich, 27·6 in Salford, 29·0 in Liverpool, and 30·4 in Sunderland. The 4408 deaths included 774 which were referred to the principal zymotic diseases, against 1455 and 1118 in the two preceding weeks; of these, 530 resulted from diarrhœa, 70 from diphtheria, 65 from "fever" (principally enteric), 43 from whooping-cough, 41 from measles, and 25 from scarlet fever. The lowest death-rates from these diseases were recorded in Brighton, Derby, Birkenhead, and Halifax; while they caused the highest rates in Norwich, Swansea, Sunderland, and Gateshead. The greatest mortality from measles occurred in Norwich and Gateshead; from "fever" in Leeds, Newcastle-upon-Tyne, and Sunderland; and from diarrhœa in Blackburn, Salford, Burnley, Sunderland, Hull, Gateshead, and Norwich. The mortality from scarlet fever and from whooping-cough showed no marked excess in any of the large towns. The 70 deaths from diphtheria included 34 in London, 5 in West Ham, 5 in Swansea, 4 in Leeds, 4 in Sheffield, 3 in Portsmouth, 3 in Birmingham, and 3 in Leicester. No fatal case of small-pox was registered during the week under notice either in London or in any other of the thirty-three large towns; and no small-pox patients were under treatment in any of the Metropolitan Asylum Hospitals. The number of scarlet fever patients in these hospitals and in the London Fever Hospital was 2606 on Saturday last, the 8th inst. against 2319, 2353, and 2459 at the end of the three preceding weeks; 358 new cases were admitted during the week, against 242, 288, and 300 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had been 157 and 200 in the two preceding weeks, further rose to 226 last week, and were 7 above the corrected average. The causes of 42, or 1·0 per cent., of the deaths in the thirty-three towns were not certified, either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Nottingham, Salford, Bradford, Hull, Newcastle-upon-Tyne, and in twelve other smaller towns; the largest proportions of uncertified deaths were registered in Liverpool, Blackburn, and Preston.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 19·7 and 19·1 per 1000 in the two preceding weeks, rose again to 20·6 during the week ending Oct. 8th, and slightly exceeded the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 13·7 in Perth and 19·6 in Aberdeen and in Greenock to 22·7 in Paisley and 24·3 in Dundee. The 621 deaths in these towns included 62 which were referred to diarrhœa, 19 to whooping-cough, 14 to scarlet fever, 14 to "fever," 7 to diphtheria, and 7 to measles. In all, 123 deaths resulted from these principal zymotic diseases, against 156 and 127 in the two preceding weeks. These 123 deaths were equal to an annual rate of 4·1 per 1000, which was 0·5 above the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of diarrhœa, which had declined from 110 to 75 in the three preceding weeks, further fell to 62 last week, of which 22 occurred in Glasgow, 16 in Dundee, and 9 in Edinburgh. The 19 deaths from whooping-cough exceeded by 2 the number in the preceding week, and included 10 in Glasgow and 6 in Edinburgh. The fatal cases of scarlet fever, which had been 3, 6, and 11 in the three preceding weeks, further rose to 14 last week, of which 9 occurred in Glasgow, 2 in Dundee, and 2 in Aberdeen. The 14 deaths referred to different forms of "fever" corresponded with the number recorded in the preceding week, and included 10 in Glasgow and 4 in Paisley. Of the 7 fatal cases of diphtheria 4 occurred in Glasgow. The deaths from diseases of the respiratory organs in these towns, which had been 85 and 87 in the two preceding weeks, further rose to 105 last week, but were 57 below the number in the corresponding period of last year. The causes of 23, or nearly 4 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had declined in the four preceding weeks from 30·7 to 24·6 per 1000, further fell to 23·1 during the week ending Oct. 8th. During the thirteen weeks of last quarter the death-rate in the city averaged 23·1 per 1000, the rate during the same period being 19·4 in London and 18·7 in Edinburgh. The 155 deaths registered in Dublin during the week under notice showed a decline of 10 from the number in the preceding week, and included 19 which were referred to the principal zymotic diseases, against 32 and 38 in the two preceding weeks; of these, 14 resulted from diarrhœa, 3 from whooping-cough, 2 from "fever," and not one either from small-pox, measles, scarlet-fever, or diphtheria. These 19 deaths were equal to an annual rate of 2·8 per 1000, the zymotic death-rate during the same period being 2·4 in London and 2·8 in Edinburgh. The deaths from diarrhœa, which had been 20 and 27 in the two preceding weeks, declined again to 14 last week. The 3 fatal cases of whooping-cough were below the number recorded in any recent week. The deaths referred to different forms of "fever," which had been 6 and 5 in the two preceding weeks, further declined to 2 last week. The 155 deaths in Dublin last week included 46 of infants under one year of age and 34 of persons aged upwards of sixty years;

ANALYSIS OF SICKNESS AND MORTALITY STATISTICS IN LONDON DURING SEPTEMBER, 1898.

(Specially compiled for THE LANCET.)

SANITARY AREAS.	Estimated population in the middle of 1898.	NOTIFIED CASES OF INFECTIOUS DISEASE.										DEATHS FROM PRINCIPAL INFECTIOUS DISEASES.											Deaths from all causes.	Death-rate per 1000 living.	Deaths of infants under one year to 1000 births.
		Small-pox.	Scarlet fever.	Diphtheria.*	Typhus fever.	Enteric fever.	Other continued fevers.	Puerperal fever.	Erysipelas.	Cholera.	Total.	Annual rate per 1000 persons living.	Small-pox.	Measles.	Scarlet fever.	Diphtheria.†	Whooping-cough.	Typhus fever.	Enteric fever.	Other continued fevers.	Diarrhœa.	Total.	Annual rate per 1000 persons living.			
LONDON...	4,504,766	2	1362	980	—	293	4	11	408	12	3072	8·9	—	46	30	120	135	—	40	—	1417	1778	5·1	7249	21·0	303
West Districts.																										
Paddington	127,480	—	18	20	—	9	1	—	12	—	60	6·1	—	1	—	5	2	—	—	—	31	39	4·0	170	17·4	330
Kensington	172,174	—	39	20	—	14	—	—	13	1	87	6·6	—	—	—	1	3	—	—	—	31	35	2·6	196	14·8	272
Hammersmith	107,370	—	40	23	—	7	—	—	8	—	78	9·5	—	1	1	2	1	—	2	—	40	47	5·7	188	22·8	409
Fulham	125,275	—	42	29	—	—	—	—	6	—	77	8·0	—	1	1	2	1	—	—	—	54	59	6·1	198	20·6	270
Chelsea	96,713	—	26	16	—	4	—	—	6	—	52	7·0	—	—	3	1	2	—	1	—	25	32	4·3	146	19·7	345
St. George Hanover-square	80,608	—	18	11	—	—	—	1	3	—	33	5·3	—	—	—	2	—	—	1	—	9	12	1·9	79	12·8	154
Westminster	52,574	—	9	8	—	6	—	1	1	—	25	6·2	—	—	—	1	2	—	1	—	9	13	3·2	84	20·8	275
St. James Westminster	22,200	—	3	2	—	—	—	—	2	—	7	4·1	—	—	—	—	—	—	—	—	3	3	1·8	27	15·9	219
North Districts.																										
Marylebone	140,483	—	27	33	—	4	1	1	17	—	83	7·7	—	—	1	6	4	—	1	—	19	31	2·9	182	16·9	184
Hampstead	78,755	—	25	7	—	7	—	—	—	—	39	6·5	—	—	—	—	—	—	—	—	11	11	1·8	74	12·2	304
St. Pancras	243,416	—	92	31	—	20	—	1	25	2	171	9·2	—	4	3	5	11	—	4	—	69	96	5·1	439	23·5	320
Islington	344,616	—	128	44	—	26	—	—	23	—	221	8·4	—	5	3	6	10	—	2	—	117	143	5·4	543	20·5	309
Stoke Newington	34,660	—	23	1	—	1	—	—	3	—	28	10·5	—	—	—	—	—	—	1	—	7	8	3·0	38	14·3	218
Hackney	219,630	—	85	50	—	19	1	1	17	—	173	10·3	—	2	—	4	3	—	2	1	50	61	3·6	294	17·5	264
Central Districts.																										
St. Giles	37,519	—	3	3	—	1	—	—	10	—	17	5·9	—	—	—	—	1	—	—	—	10	11	3·8	62	21·5	238
St. Martin-in-the-Fields	12,424	—	—	—	—	1	—	—	1	—	2	2·1	—	—	—	—	—	—	—	—	1	1	1·0	12	12·6	500
Strand	23,284	—	7	2	—	2	—	—	—	—	11	6·2	—	—	1	—	—	—	—	—	4	5	2·8	41	23·0	292
Holborn	30,066	—	10	22	—	1	—	—	4	—	37	16·0	—	—	—	1	1	—	—	—	6	14	6·1	66	28·6	286
Clerkenwell	66,120	—	17	20	—	3	—	—	6	—	46	9·1	—	2	1	3	—	—	2	—	33	41	8·1	135	26·6	376
St. Luke	41,076	—	15	20	—	3	—	—	5	—	43	13·6	—	—	—	2	1	—	—	—	18	21	6·7	79	25·1	206
City of London	29,088	—	8	2	—	1	—	—	—	—	11	4·9	—	—	—	1	—	—	1	—	3	5	2·2	36	16·1	282
East Districts.																										
Shoreditch	121,485	—	42	25	—	11	—	1	18	—	97	10·4	—	4	—	3	—	—	4	—	56	67	7·2	254	27·3	396
Bethnal Green	129,027	—	32	16	—	11	—	—	34	—	93	9·4	—	10	—	—	—	—	1	—	44	55	5·6	256	25·8	322
Whitechapel	80,559	1	22	13	—	5	—	—	13	—	54	8·7	—	3	1	1	3	—	1	—	25	31	5·0	145	23·5	318
St. George-in-the-East	48,241	—	5	5	—	3	—	—	7	—	20	5·4	—	—	—	—	3	—	—	—	16	19	5·1	113	30·5	310
Limehouse	58,661	—	13	10	—	5	—	1	11	—	40	8·9	—	1	—	1	2	—	—	—	30	34	7·6	121	26·9	329
Mile End Old Town	112,528	—	27	46	—	6	—	—	22	—	101	11·7	—	3	—	9	1	—	2	—	49	64	7·4	198	22·9	237
Poplar	170,220	—	36	43	—	17	—	—	16	2	114	8·7	—	2	1	9	2	1	—	—	71	85	6·5	324	24·8	360
South Districts.																										
St. Saviour Southwark	24,562	—	11	4	—	1	—	—	2	—	18	9·6	—	—	—	—	1	—	1	—	12	14	7·4	56	29·2	472
St. George Southwark	60,466	—	31	30	—	3	—	—	6	1	71	15·3	—	—	—	1	2	—	2	—	29	34	7·3	143	30·8	386
Newington	123,183	—	73	44	—	18	—	—	12	—	147	15·7	—	—	—	2	3	—	1	—	45	65	6·9	210	22·2	261
St. Olave Southwark	11,288	—	6	1	—	—	—	—	—	—	7	8·1	—	—	—	—	—	—	—	—	3	3	3·5	15	15·0	167
Bermondsey	85,738	—	60	30	—	3	—	—	9	—	102	15·5	—	—	—	5	8	3	—	1	26	43	6·5	151	23·0	229
Rotherhithe	40,849	—	6	1	—	1	—	—	6	—	14	4·5	—	—	—	—	—	—	—	—	7	7	2·2	67	21·4	374
Lambeth	304,073	—	74	84	—	9	—	—	23	4	194	8·3	—	1	—	11	11	—	1	—	91	115	4·9	508	21·8	287
Battersea	171,921	—	46	63	—	9	—	—	13	—	131	9·9	—	—	—	9	6	—	—	—	36	51	3·9	225	17·1	231
Wandsworth	202,526	1	33	49	—	10	—	—	8	—	101	6·5	—	3	—	6	9	—	1	—	49	68	4·4	236	15·2	259
Camberwell	261,189	—	94	63	—	8	2	—	11	—	178	8·9	—	1	1	1	15	—	2	—	86	106	5·3	405	20·2	314
Greenwich	180,441	—	36	44	—	27	1	—	18	—	125	9·0	—	1	3	3	8	—	6	—	93	114	8·2	369	26·7	454
Lewisham (excluding Penge)	88,562	—	18	11	—	4	—	1	5	—	39	5·7	—	1	1	—	5	—	—	—	36	43	6·3	144	21·2	352
Woolwich...	41,478	—	17	7	—	2	—	—	3	—	29	9·1	—	—	—	—	4	—	1	—	24	29	9·1	85	26·7	340
Lee	39,717	—	14	20	—	2	—	—	4	—	40	13·1	—	—	—	1	1	—	—	—	11	14	4·6	45	14·8	318
Plumstead	62,531	—	32	7	—	3	—	1	5	2	50	10·4	—	—	—	—	1	—	—	—	28	29	6·0	93	19·4	291
Port of London	—	—	—	—	—	6	—	—	—	—	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

* Including 15 cases of membranous croup.

† Including deaths from membranous croup.

the deaths of infants showed a slight increase, while those of elderly persons showed a decline from the number in the preceding week. Six inquest cases and 3 deaths from violence were registered; and 40, or more than a fourth, of the deaths occurred in public institutions. The causes of 10, or more than 6 per cent., of the deaths in the city last week were not certified.

VITAL STATISTICS OF LONDON DURING SEPTEMBER, 1898.

IN the accompanying table will be found summarised complete statistics relating to sickness and mortality during September in each of the forty-three sanitary areas of London. With regard to the notified cases of infectious diseases in the metropolis last month it appears that the number of persons reported to be suffering from one or other of the nine diseases specified in the table was equal to 8·9 per 1000 of the population, estimated at 4,504,766 persons in the middle of this year. In the three preceding months the rates had been 7·1, 8·1, and 6·5 per 1000 respectively. Among the various sanitary areas the rates were considerably below the average in St. George Hanover-square, St. James Westminster, St. Martin-in-the-Fields, City of London, St. George-in-the-East, Rotherhithe, and Lewisham; while they showed the largest excess in Stoke Newington, Holborn, St. Luke, Mile End Old Town, St. George Southwark, Newington, and Bermondsey. Two cases of small-pox were notified in London during September, against 6, 2, and 5 in the three preceding months; of these, 1 occurred in Whitechapel and 1 in Wandsworth sanitary areas. One case of small-pox was admitted into the Metropolitan Asylum Hospitals during September, but none remained under treatment at the end of the month. The prevalence of scarlet fever in London showed a marked increase upon that recorded in the preceding month; among the various sanitary areas this disease showed the highest proportional prevalence in Stoke Newington, Hackney, St. Saviour Southwark, St. George Southwark, Newington, St. Olave Southwark, Bermondsey, Woolwich, and Plumstead. The Metropolitan Asylum Hospitals contained 2425 scarlet fever patients at the end of September, against 2146, 2255, and 2207 at the end of the three preceding months; the weekly admissions averaged 270, against 208, 242, and 202 in the three preceding months. The prevalence of diphtheria in London during September showed a considerable increase upon that recorded in the preceding month; this disease was proportionally most prevalent in Holborn, St. Luke, Mile End Old Town, St. George Southwark, Newington, Battersea, and Lee sanitary areas. There were 1024 diphtheria patients under treatment in the Metropolitan Asylum Hospitals at the end of September, against 971, 1014, and 865 at the end of the three preceding months; the weekly admissions averaged 163, against 134, 146, and 107 in the three preceding months. The prevalence of enteric fever in London showed a further increase upon that recorded in recent months; among the various sanitary areas this disease showed the highest proportional prevalence in Westminster, Hackney, Shoreditch, Poplar, Newington, and Greenwich. The Metropolitan Asylum Hospitals contained 155 enteric fever patients at the end of September, against 53, 87, and 118 at the end of the three preceding months; the weekly admissions averaged 28, against 11, 16, and 21 in the three preceding months. Erysipelas was proportionally most prevalent in St. Giles, Bethnal Green, Whitechapel, Limehouse, and Mile End Old Town sanitary areas. The 11 cases of puerperal fever notified in London during September included 2 in Camberwell sanitary area.

The mortality statistics in the table relate to the deaths of persons actually belonging to the various sanitary areas of the metropolis, the deaths occurring in the institutions of London having been distributed among the various sanitary areas in which the patients had previously resided. During the four weeks ending Saturday, Oct. 1st, the deaths of 7249 persons belonging to London were registered, equal to an annual rate of 21·0 per 1000, against 14·6, 14·7, and 20·7 in the three preceding months. The lowest death-rates in the various sanitary areas were 12·2 in Hampstead, 12·6 in St. Martin-in-the-Fields, 12·8 in St. George Hanover-square, 14·3 in Stoke Newington, 14·8 in Kensington and in Lee, and 15·0 in St. Olave Southwark; the highest rates were 26·7 in Woolwich, 26·9 in Limehouse, 27·3 in Shoreditch, 28·6 in Holborn, 29·2 in St. Saviour Southwark, 30·5 in St. George-in-the-East, and 30·8 in St. George Southwark. During the four weeks of September 1778 deaths were referred to the principal zymotic diseases in London; of these, 46 resulted from measles, 30 from scarlet fever, 120 from diphtheria, 125 from whooping-cough, 40 from enteric fever, 1417 from diarrhœa, and not one death from small-pox, typhus, or any ill-defined form of continued fever. These 1778 deaths were equal to an annual rate of 5·1 per 1000; among the various sanitary areas the lowest zymotic death-rates were recorded in St. George Hanover-square, St. James Westminster, Hampstead, St. Martin-in-the-Fields, City of London, and Rotherhithe; and the highest rates in Clerkenwell, Limehouse, Mile End Old Town, St. Saviour Southwark, St. George Southwark, Greenwich, and Woolwich. The 46 fatal cases of measles were 33 below the corrected average number in the corresponding periods of the ten preceding years; this disease showed the highest proportional fatality in Bethnal Green and Whitechapel sanitary areas. The 30 deaths referred to scarlet fever were less than half the corrected average number; among the various sanitary areas this disease was proportionally most fatal in Chelsea and Bermondsey. The 120 fatal cases of diphtheria were 58 below the corrected average number; this disease showed the highest proportional fatality in Holborn, Clerkenwell, Mile End Old Town, Poplar, Newington, Bermondsey, and Battersea sanitary areas. The 125 deaths from whooping-cough slightly exceeded the corrected average number; among the various sanitary areas this disease was proportionally most fatal in St. George-in-the-East, Newington, Lewisham, and Woolwich. The 40 fatal cases of enteric fever were 21 below the corrected average number; this disease showed the highest proportional fatality in Clerkenwell, Shoreditch, and Greenwich sanitary areas. The 1417 deaths referred to diarrhœa were as many as 1062 above the corrected average number; this disease was proportionally most fatal in Clerkenwell, Shoreditch, Limehouse, St. Saviour Southwark, St. George Southwark, Greenwich, and Woolwich sanitary areas. In conclusion, it may be stated that the aggregate mortality in London last month from these principal zymotic diseases was just double the corrected average, owing to the excessive fatality of summer diarrhœa.

Infant mortality in London, measured by the proportion of deaths of children under one year of age to registered births, was equal to 303 per 1000, which, owing to the continued prevalence of summer diarrhœa, very considerably exceeded the average. Among the various sanitary areas the lowest rates of infant mortality were recorded in St. George Hanover-square, St. James Westminster, Marylebone, Stoke Newington, St. Luke, and St. Olave Southwark; and the highest rates in Hammersmith, St. Martin-in-the-fields, Clerkenwell, Shoreditch, St. Saviour Southwark, St. George Southwark, and Greenwich.

THE SERVICES.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments are announced: — Staff Surgeons: William Spry to the *Impregnable*; J. W. Slaughter to the *Cleopatra*; and William Tait to the *Mars*. Surgeon Alfred H. L. Cox to the *Cambridge*.

ROYAL ARMY MEDICAL CORPS.

The following gentlemen have been nominated for entrance to the Army Medical School at Netley as surgeons on probation from the Royal Army Medical Corps:—F. Ashe, Owens College, Manchester; H. E. Haynes, St. Thomas's; L. Humphrey, Guy's Hospital; G. J. A. Ormsby, Dublin University; H. D. Packer, Guy's Hospital; H. K. Palmer, St. Bartholomew's; R. S. Rodger, Edinburgh University; N. J. C. Rutherford, Trinity College, Dublin; A. O. B. Wroughton, St. Bartholomew's; Mr. T. J. Jordan and Mr. W. W. Scarlett, Royal College of Surgeons in Ireland.

Surgeon-General John B. Hamilton is placed on retired pay. Colonel William D. Wilson to be Surgeon-General, vice J. B. Hamilton. Lieutenant-Colonel Alexander Anderson is placed on retired pay.

Major L. Haywood has joined at Mullingar for duty. Major J. C. Culling is posted to the Station Hospital, Western Heights, for duty. Lieutenant-Colonel A. Kirwan, retired pay, A.M.S., is appointed to the medical charge of the Leicestershire Regimental District. Lieutenant-Colonel

R. Exham is appointed Principal Medical Officer Western District, vice Surgeon-General J. B. Hamilton, retired. Surgeon-General W. Taylor, late P.M.O. of the Khartoum expedition, will succeed Surgeon-General A. A. Gore as P.M.O. of the British Forces at Army Headquarters in India.

INDIA AND THE INDIAN MEDICAL SERVICES.

Lieutenant-Colonel Carr-Calthrop, Bengal Establishment, is granted the temporary rank of Colonel while officiating as Principal Medical Officer and Sanitary Commissioner, Assam, vice Colonel A. Stephen, appointed officiating Inspector-General, Civil Hospitals, Punjab. The services of Major Bannerman (Madras) are replaced at the disposal of the Government of Madras.

ARMY MEDICAL RESERVE OF OFFICERS.

Surgeon-Captain E. W. St. V. Ryan to be Surgeon-Major.

VOLUNTEER CORPS.

Artillery: 2nd East Riding of Yorkshire (Western Division, Royal Artillery): Thomas Cameron to be Surgeon-Lieutenant.

THE LATE SPANISH-AMERICAN WAR.

The indictment which "an eye-witness" brings against the Washington War Office authorities in his second article in the *Saturday Review* of Oct. 8th is anything but pleasant reading. If all which he has to say regarding the sufferings of the sick and wounded at Santiago, owing to the want of medical attendance in Cuba, the absence of any prompt aid to the wounded, the insufficiency and distance of the hospital accommodation and the inadequacy of the hospital stores and supplies be correct, there must have been grave mismanagement somewhere on the part of those responsible for the medical service. We must now, however, await the result of the official inquiry into the subject. Making every allowance for the state of unpreparedness which existed, the mixed nature of the force—composed, however, as it certainly was, of fine fighting material—and the hurried nature of the expedition altogether, there still seems to have been a lamentable want of administrative and organising capacity. That war was almost certain must have been foreseen, and the nature of the service, the climate, and the topographical features and diseases of the country were known, therefore the want of any proper provision seems inexplicable under the circumstances. It is to be feared that political considerations had too much influence and led to jobbery on the part of contractors and to wrong appointments being made. At any rate, a writer in *Scribner's Magazine* for this month does not hesitate to attack General Shafter's conduct and generalship during the San Juan campaign. In another column will be found an extract from an editorial article in the *Philadelphia Polyclinic* supporting the Medical Corps of the United States army.

We notice in a telegram from Manila of Oct. 8th that there has been a small but sharp outbreak of small-pox among the American troops there, 14 cases and 6 deaths having been returned in the course of a few days. That scourge of all modern armies on field service, typhoid fever, is also prevailing, 8 deaths therefrom having been reported.

THE LATE CAMPAIGN IN THE SOUDAN.

As might have been confidently expected, and was indeed foreseen, the troops returning from the Soudan to Lower Egypt and elsewhere have begun to harvest the results of the sickness sown and contracted during their late campaign. The medical service may, however, fairly congratulate itself on the favourable results, for the loss of life from sickness has so far been much less than might have been expected; still, it always happens, as we have already said, that sickness and mortality follow in the wake of a campaign like that lately conducted on the Upper Nile. There have been a number of cases of enteric fever among the British troops returning from Atbara and Omdurman, some of which have been fatal, but the number of these has been much exaggerated. If we may judge from the appearance of those officers and men we have seen, the heat-exposure, strain, and fatigue have told upon them, for they look what is termed rather "drawn." Colonel Young, Commissioner of the National Aid Society, in addition to the aid which the society has afforded in the way of Nile transport for the sick and wounded, has presented the Sirdar with £300 for the benefit of the sick and wounded among the Egyptian soldiers engaged in the Soudan campaign, and a further sum of £200 for the purchase of articles urgently needed for the treatment of the Dervish wounded now under medical treatment at Omdurman.

THE INDIAN MEDICAL SERVICE.

The annual medical service dinner took place at the United Service Club, Simla, on Sept. 19th, Surgeon-General Harvey, C.B., D.S.O., presiding. The President made an excellent as well as a sensible and inspiriting speech in proposing prosperity to the service. During the last four years the Indian Medical Service had been severely tried by the exigencies of famine, plague, and war, but the service always rose to its duty and was always true to itself. There was no evidence of decadence—quite the contrary. In the frontier operations an immense amount of admirable work was done. The names of Young, Hugo, Fisher, and Selby, said the chairman, might well be bracketed with those of Crimmin and Whitchurch. In addition to those who had distinguished themselves at the front many officers had struggled with plague and famine and some of them had lost their lives in doing their duty. We may add that the Royal Warrant conferring the new titles on officers of the Indian Medical Service has reached Simla although not yet officially published.

DEATHS IN THE SERVICES.

Staff Surgeon Octavius Stephens Fisher, R.N., at South Queensferry, N.B., in his thirty-sixth year. He was appointed Surgeon in the Navy in 1885, and promoted Staff Surgeon in 1897.

Colonel Randolph Caldecott, I.M.S., Bombay, on Sept. 29th, aged fifty-one years. He entered the service in 1869, was promoted Surgeon in 1873, Surgeon-Major in 1891, Surgeon-Major (ranking as Lieutenant-Colonel) in 1889, Brigade-Surgeon in 1895, and Surgeon-Colonel in 1897.

The *Pioneer Mail* for Sept. 23rd has the following items of intelligence regarding the movements of officers in the Medical Services serving in India:—Brigade-Surgeon-Lieutenant-Colonel J. Young, Indian Medical Service, has been appointed Principal Medical Officer, Malakand Field Force, *vice* Brigade-Surgeon-Lieutenant-Colonel W. J. Charlton. Surgeon-Colonel W. P. Warburton, Inspector-General of Civil Hospitals, North-West Provinces and Oudh, goes on furlough. Surgeon-Colonel Hall, Inspector-General of Jails, will officiate, and Surgeon-Major MacTaggart will act as Inspector-General of Jails. Brigade-Surgeon-Lieutenant-Colonel J. Moran, I.M.S., retires from the service this month (October). Lieutenant-Colonel A. Anderson, R.A.M.C., officiates as Principal Medical Officer, Secunderabad district, vice Colonel Major, who proceeds home on sick leave.

The Queen has granted unto the under-mentioned officers Her Majesty's Royal licence and authority to wear the Insignia of the following Orders conferred upon them by His Highness the Khedive of Egypt, authorised by His Imperial Majesty the Sultan of Turkey: Captain Richard Hugh Penton, D.S.O., Royal Army Medical Corps, Osmanieh (Fourth Class); Captain Philip Henry Whiston, Royal Army Medical Corps, Medjidieh (Fourth Class).

DIPHTHERIA IN LONDON.—In the week ended on Oct. 1st the registered deaths from diphtheria in London were 33, as against 30, 29, and 29 in the three weeks preceding, but were 22 below the corrected decennial average for the corresponding weeks of the ten years 1888–97. Bermondsey, Hackney, and Wandsworth sanitary areas were respectively credited with 4 deaths, while Poplar and Battersea had each 3 deaths. The admissions of diphtheria cases to hospital in the week numbered 197, as compared with 148, 158, and 155 in the preceding three weeks. In all 33 fatalities the age was under twenty years, 23 being of children under five years of age. In the Outer Circle 17 deaths from the disease were registered, of which 7 belonged to West Ham registration district. Last week the registered deaths from diphtheria in London rose to 34, but were still 18 below the corrected decennial average. 4 belonged to Islington and 3 each to Limehouse and Wandsworth sanitary areas. All were of persons aged under twenty years. The fresh cases admitted to hospital during the week numbered 180. In the Outer Circle the registered diphtheria deaths fell to 10, of which 6 belonged to West Ham registration district.

Correspondence.

"Audi alteram partem."

MEDICAL CHARITIES.

To the Editors of THE LANCET.

SIRS,—The series of lectures arranged for the next two months by the Joint Lectures Committee of the Charity Organisation Society will, I believe, be of interest to members of the medical profession and their friends. I venture, therefore, to send you a note about them. They are eight in number and will be delivered at the Portman Rooms, Baker-street, at 4.30 P.M. on Fridays, beginning on the 21st inst., when Sir William Broadbent has kindly consented to preside and give a short introductory address. The lectures are on the following subjects: The Growth of Medical Charities (Oct. 21st), Mr. C. S. Loch; the Dispensary (Oct. 28th), Dr. L. A. Hawkes; the Hospital (Nov. 4th), Mr. Clinton Dent; the Poor-law Infirmary (Nov. 11th), Dr. T. D. Savill; the Lunatic Asylum (Nov. 18th), Dr. Rayner; District Nursing (Nov. 25th), Miss Amy Hughes; Sick Insurance (Dec. 2nd), Mr. F. G. P. Neison; and the Provident Dispensary and District Nursing (Dec. 9th), Dr. J. B. Hurry.

Mrs. Hill, the hon. secretary, 19, Park-mansions, Battersea-park, S.W., will gladly send prospectuses to all inquirers.

I am, Sirs, your obedient servant,

C. S. LOCH,
Secretary, Charity Organisation Society.

Buckingham-street, Strand, W.C., Oct. 12th, 1898.

THE CONSCIENTIOUS OBJECTOR.

To the Editors of THE LANCET.

SIRS,—The extraordinary legislation of the past session in the matter of vaccination—which has made us the laughing-stock of all other civilised nations in consequence of the surrender by Parliament of scientific truth to the prejudices of the ignorant—has compelled me to be a "conscientious objector" in the opposite sense to the one created by the recent Acts of Parliament. I have the honour to be a magistrate as well as a physician and I have, after very careful consideration, determined that (knowing what I do) I cannot conscientiously sign a certificate of exemption from compulsory vaccination except in a case of proved bad health. I have therefore determined to retire from the bench whenever an application comes before me for such a certificate. I venture to hope that my medical brethren who are magistrates will see their way to pursue the same line of action.

I am, Sirs, yours faithfully,

THOS. W. THURSFIELD, M.D. Aberd., F.R.C.P. Lond.,
J.P. for the County of Warwick.

Leamington, Oct. 8th, 1898.

THE EXCLUSION OF INFECTION FROM SCHOOLS.

To the Editors of THE LANCET.

SIRS,—Will you be good enough to give publicity to the following facts, which I think should be widely known in the interests of parents and schools?

I have a preparatory school for boys and for some years I made use of the following certificate which I asked parents to fill up before the beginning of each term, and this was regularly done.

CERTIFICATE.

"I certify that ..... is quite fit to return to school, that he has not had any infectious illness during the holidays, neither has he to the best of my knowledge been exposed to any danger of infection during the three weeks preceding his return to school."

During these years measles (twice), chicken-pox, and whooping-cough were introduced into the school and could all be traced unmistakeably to the holidays in spite of this certificate, and as a climax a boy returned with scarlatina in its very mildest form but with throat slightly ulcerated and a faint rash. The consequences were disastrous to me, resulting in no less than 15 cases and involving me in a pecuniary loss of over £500, besides all the inconvenience and loss to parents caused by illness leading to breaking-up of the school. I have now obtained the almost unanimous consent of the parents to a still more stringent precaution. I require a medical examination and certificate dating not later than *the day previous* to the boy's return to school. The certificate appended to the one quoted above reads thus:—

"I certify that I have this day carefully examined ..... who returns to school to-morrow, and that there are no signs of any infectious complaint about him." (Signature of medical man.) .....

In addition to this I get my own school medical attendant to see all the boys immediately on their arrival at school.

On Sept. 30th, a Friday, my boys came back to school; 21 of us travelled together in a saloon from London. On our arrival my medical man found that one boy admitted having some spots on his body; he examined him and found well-developed chicken-pox, some of the spots being obviously about a week old. The boy knew he had been having "heat-spots" for some time. The medical man at home saw him on the Thursday, after which he was poorly and his temperature rose to 100·1° F., so the medical man was sent for to see him again the same evening and again on Friday to satisfy the mother that he was fit for school. I hold the medical man's certificate worded exactly as above. Chicken-pox being what it is and the boy having been for over an hour in the train with so many others I fully expect that every boy in the school who has not previously had the illness will have it now and all their parents and the school must suffer accordingly.

But this is not all. Finding that this particular boy said the medical man had not examined his body at all on the Thursday I pushed my inquiries further, with the following results. Out of 32 boys whose certificates I hold only 14 had been examined on their chest, 17 in the throat, several had simply been told to put their tongues out, 5 had not been examined at all as to either tongue, throat, or chest, and none at all were examined on the head. The net result is that out of the 23 medical men from various parts of England and Scotland only 7 (including 2 distinguished London practitioners) made a thorough examination before signing this explicit declaration, "I have carefully examined." Such a cursory examination as satisfied most of these gentlemen would have failed to discover the case of scarlatina referred to above quite as surely as it failed to discover the chicken-pox on the present occasion.

My object in writing to you, Sirs, is to ask your assistance in bringing this matter before the medical profession, who are in so many ways the best friends of schoolmasters, whose sympathetic help is so necessary to us, and with whom we wish to work in complete harmony. But my recent experience seems to show that many scarcely quite realise yet the importance of safeguarding schools from epidemics or the ease with which the first symptoms of infection may escape even the professional eye. For obvious reasons I can only sign myself, Sirs,

Yours faithfully,

Oct. 3rd, 1898. A PREPARATORY SCHOOLMASTER.

P.S.—It is only fair to the medical man mentioned above to say that just before posting this I have received a letter from him saying that he examined the boy's lungs both back and front on the Thursday and there were no chicken-pox marks upon him then. He intimates that the spots were only "a pustular eruption."

"ULCERATING GRANULOMA OF THE PUDENDA."

To the Editors of THE LANCET.

SIRS,—In THE LANCET of July 9th last attention is drawn to the disease termed "ulcerating granuloma of the pudenda" which appears to be prevalent in the West Indies. There is no doubt that the disease is similar to anaffection which is prevalent in India, a description of which was given by myself in the *Indian Medical Gazette* of May, 1898, under the term "chronic venereal sores." In India it is believed that the disease is venereal in origin—the ulceration originating as a chancre or bubo—although not syphilis. The disease is of a most inveterate character and very difficult to cure.

I am, Sirs, yours faithfully,

J. MAITLAND,
Lieutenant-Colonel, I.M.S.

General Hospital, Madras, Sept. 19th, 1898.

LYMPH-GLAND JUICE IN THE TREATMENT OF CANCER.

To the Editors of THE LANCET.

SIRS,—Will you permit me to indicate a new principle in the treatment of malignant disease which may afford important results? The nuclear particles of epithelioma are, as everyone knows, carried by the lymph to the adjoining glands, which arrest them and so prevent a general blood-contamination. Individual examples of this lesion (which only retrogressive pathology would confuse with carcinoma) manifest a remarkable difference in the speed with which these glands are infected. Thus ordinary "cancer of the tongue" establishes active growth within the glands in six weeks, often less; whereas epithelial lesions on the foot or hand set up no secondary gland metastases for at least several months, and those on the external genitals hardly for a year. A mammary carcinoma beginning close to the axilla involves gland enlargement almost simultaneously. One arising at the sternal border does not implicate those organs for eight or ten weeks later.

Turning to another cancer variety, true sarcoma, we find that the lymph glands are never distally infected at all, although many of the cases are remarkably virulent, and it is impossible to doubt that nuclear fragments are carried to them in large numbers. There is no gland deposit with a sarcoma unless either by direct infiltration or concurrently with general blood contamination. The case cited at p. 87 of my "Recurrence of Cancer" proved that there had been irritation of the lymph glands sufficient to induce enlargement and greatly to modify structure, yet without the survival of any malignant protoplasm. I am therefore impelled to the conclusion that it is the function of the lymph-glands, not only to arrest, *but actually to destroy*, the protoplasm of cancer. In the ordinary course of events this takes place only up to a certain point. Eventually the gland is overpowered by stress of numbers. But under some circumstances, as above indicated, the resistance is long-continued and the number of infective particles killed must be considerable.

On the supposition that a natural secretion is the active agent Messrs. Warrick Brothers have made for me an extract of fresh lymph-glands warranted to contain, as far as possible, the vital qualities of the living organ. I have administered this to sundry cases with apparent benefit and never with any bad symptom. A gentleman seen in July, 1897, going down hill very fast with advanced cancer of the stomach, and very unlikely to survive beyond November or December, had his life prolonged until last April. I hope later to furnish further details. I have no facilities whatever for physiological research. The object of my letter is to appeal to some competent physiologist to take the matter up and to test it in the laboratory. He would require to ascertain whether a secretion of the gland, as I suppose, is the active agent; or whether, on the other hand, the destruction is effected by a phagocytic action of the lymph-cells. Medicine is learning more and more to seek its best weapons in the natural secretions of the body itself. The above principle tallies with the most recent lines of advance.

I am, Sirs, your obedient servant,

HERBERT SNOW.

Gloucester-place, Portman-square, W., Oct. 9th, 1898.

"SPHINCTER STRETCHING IN CONSTIPATION."

To the Editors of THE LANCET.

SIRS,—Mr. Sidney Vines's letter in THE LANCET of Oct. 8th brings into prominence the treatment of constipation by free sphincter stretching. It is a method well known but too little practised. If carried out in suitable cases it greatly assists and in many cases absolutely cures perplexing constipation. In my book on Diseases of the Rectum, sixth edition, I have devoted a chapter to Persistent Constipation considered from a Surgical Point of View. In a letter of this kind the subject is too lengthy to enter into fully.

In children constipation is often caused by a congenitally small but otherwise normal anus. Sometimes the child has only just missed an imperforated anus and in these cases there will be found a rigid narrow ring just inside the anus. In adults fissure is a common cause of constipation. It starts the trouble in this way. The fissure sets up a spasm with hypertrophy of the sphincter and the hypertrophy in time causes the sphincter to become indurated and so it loses its elasticity, which does not recover even if the fissure is healed by palliative methods. Treatment by free dilatation or division of the sphincter—which causes it to return to its normal condition—will often cure bad constipation arising or kept troublesome from the above causes.

I am, Sirs, your obedient servant,

HERBERT W. ALLINGHAM.

Grosvenor-street, W., Oct, 10th, 1898.

To the Editors of THE LANCET.

SIRS,—In answer to the inquiry of Mr. Sidney Vines in THE LANCET of Oct. 8th I beg to inform him that during my residence of two years in Los Angeles, California, I learnt that sphincter stretching in obstinate cases of constipation in adults was by no means an uncommon procedure. I myself have adopted this method in two cases with satisfactory results.

I am, Sirs, yours faithfully,

Macclesfield, Oct. 12th, 1898. J. WESTMORLAND.

"VITALITY."

To the Editors of THE LANCET.

SIRS,—Dr. Harry Campbell has answered his own question, "Whence comes the augmentation in the sum of vitality?" by telling us "from the food and oxygen conveyed (to the organism) from without." I know nothing about "the sum of vitality" and cannot conceive how food and oxygen can give vitality or add to it. I do not know how to measure or weigh vitality, which I believe to be without weight and immeasurable. I have said nothing about the creation of force, but have endeavoured to show why vitality cannot be derived from non-living matter or from force.

Dr. Harry Campbell asks, "What becomes of the vitality of an organism after death *unless it be transmitted (transmuted?) into some chemical, physical, or kindred force?*" I do not know, but in the present state of knowledge must deny the possibility of any such transmutation. The instant Dr. Harry Campbell or anyone shows that any such transmutation does occur I shall, of course, give up the idea of vitality and very much besides of what I now believe to be true. I certainly hold that no living matter in nature possesses structure—not even that "destined to develop into a Newton or a Shakespeare."

"Structure" as referred to by me in various papers and books has been *seen* by myself and can be *seen* by all who can use the microscope. "Structureless" is that in which no structure can be discerned when examined in the same way by the same magnifying powers.

I think I have proved that all "structure" in living nature has been formed from *Structureless Living Matter* and that the arrangement, character, composition, and action of all structures, tissues, and organs of all organisms are determined by changes in the living matter caused by the *direct action* of vital power upon the matter. Tissue, structure, does not form or add to itself, but living matter may form it and many other things. Muscle, nerve, fibrous tissue, &c., were all once in the state of structureless living matter.

Lastly, I do believe that the "immaterial" does act, has acted, and will continue to act upon the "material" in every particle of matter that is alive, even though, as Dr. Harry Campbell assures your readers, by "many great thinkers" my "position" has "been regarded as untenable" and by himself as "wholly illogical."

I am, Sirs, yours faithfully,

Oct. 9th, 1898. LIONEL S. BEALE.

To the Editors of THE LANCET.

SIRS,—Having read Professor Virchow's Huxley Lecture and also Dr. Beale's recent papers on Vitality one wonders what the author of the latter will have to say on one of Dr. Virchow's particular propositions: "The cells of living organisms are composed of organic, chemical substances which are not themselves alive but the mechanical arrangement of which determines the direction and power of their activity." Dr. Beale in his papers would lead us to infer that with Paracelsus he believes each living unit has a

spiritus which, however, is not of the supernatural tinge of the Paracelsian world but is rather a form of energy alignable with physics and chemistry. Dr. Virchow scouts the idea. Who is right, the German or the Englishman?

I am, Sirs, yours faithfully,

JOSEPH H. ROWE, M.B. Aberd.

Cowling, Yorkshire, Oct. 11th, 1898.

THE PUBLIC APPLICATION AND USES OF BACTERIOLOGY.

To the Editors of THE LANCET.

SIRS,—In reading the interesting leading articles at pp. 882-84 of THE LANCET of Oct. 1st one cannot help feeling that their writer has, doubtless unwittingly, done much less than justice to the eminent bacteriologist who is admittedly the pioneer in this country of the practical application of bacteriology to purposes of local public health administration and commerce. I refer to Professor Delépine of Owens College, who, as long ago as 1891, assisted the Manchester Public Health Department with his special knowledge, and in 1892 suggested to Dr. Tatham an official arrangement for the bacterial examination of diphtherial products and the like. In the summer of 1893 Professor Delépine's aid was invoked in the investigation of certain choleraic cases in Manchester and in 1894 the borough of Stockport was materially assisted by his advice and skill in regard to its water-supply. During the following summer (1895) a definite arrangement was entered into between Professor Delépine and the corporation of the last-mentioned town for the systematic bacterial examination of doubtful diphtheria cases. A little later a similar arrangement was made by Manchester and more recently by most of the other large Lancashire towns, and at the present moment Professor Delépine is fully realising his cherished desire that his splendid laboratories at Owens College should exist, not merely for academic purposes, but for the very real benefit of suffering humanity in the district of which the college is the scientific centre. The work has been with Professor Delépine entirely a labour of love; he has ungrudgingly devoted time, money, and his great abilities to its development without one single farthing of personal remuneration. He has assisted many other towns (Liverpool, Edinburgh, Belfast, Aberdeen, &c.) by sending them all the information they required and a complete account of his procedure, and in many public health matters on which he is specially competent to advise he is the kind and ready "guide, philosopher, and friend" of every health officer who has occasion to consult him. Surely, then, it is hardly fair that in regard to the bacteriological public health service of the country his work should be placed in a second line, so to speak, with that of cities such as Liverpool, and commercial ventures such as the Clinical Research Association, which have merely followed the lead he has so ably and modestly given them. *Palmam qui meruit ferat.*

I am, Sirs, yours faithfully,

Health Office, Stockport, Oct. 9th, 1898. CHARLES PORTER.

WHAT IS "FIRST AID"?

To the Editors of THE LANCET.

SIRS,—To prevent the remedial assistance of "first aid" passing beyond its bounds and encroaching upon remedial treatment I have found it desirable as well as necessary to define what "first aid" really consists of. As this definition might be of use to many of your readers I herewith enclose the same. "'First aid' consists in the immediate relief of suffering and the temporary dressing of all injuries sufficient to enable the sufferer to proceed to where authoritative advice can be obtained from some qualified medical man or to remain on the spot when removal is unjustifiable until that advice can be obtained."

Under this comprehensive definition the arrest of hæmorrhage, the temporary application of splints to fractures, the first dressing of burns, and the application of antiseptic dressing to wounds would take first place. Immediate assistance would include the resuscitation of the apparently dead and the first succour requisite in cases of poisoning or fits. The immediate relief of suffering would include the giving of one dose of medicine for diarrhœa, colic, or other severe pain, as well as for shock, collapse, or temporary failure of the heart's action. No redressing of wounds or injuries nor operative interference of any kind is here included; in fact, the surgical aid is limited to what would be done by bearers at the front on a battlefield before the injured are sent to the base or station hospital for final redressing and surgically approved treatment.

I am, Sirs, yours faithfully,

Devonshire-street, W., Oct. 11th, 1898. SAMUEL OSBORN.

"GAS AND AIR."

To the Editors of THE LANCET.

SIRS,—I shall be very happy to show Dr. Flux my gas apparatus—now, alas, over twenty years old—by which he need not employ any napkin over the face or touch the patient's face with any of the apparatus. I have never suggested this very old method to my colleagues, much less the public, as I do not think the fees admit such a waste of gas. It reminds me of a letter I once received from the late Mr. Clover, who was taken in (by the recommendation of the committee of the British Medical Association) to use dichloride of ethidene, in which he related that a case had cost him 30*s.*, and that out of a two guinea fee. *Verb. sap.*

I am, Sirs, yours faithfully,

TOM BIRD,

Instructor in the Use of Anæsthetics to Guy's Hospital.

Brook-street, W., Oct. 11th, 1898.

THE ETHICS OF CLUB PRACTICE.

To the Editors of THE LANCET.

SIRS,—I should be glad to have an expression of your opinion on the following case.

I have been surgeon for over thirty years to a very large friendly society and my connexion with this society has always been most amicable till about twelve months ago. Then I was called in to see a member of the society suffering from quinsy. I saw him on the Monday morning and promised to call again on the Tuesday morning, but owing to stress of other work I was unable to get there and sent my assistant (M.R.C.S., L.R.C.P. Lond.) to see the man in the afternoon. (According to the patient's own statement the man was not seen for 26 hours.) On arrival at the house my assistant was told that the patient had called in another medical man who lived nearer. In the evening this medical man telephoned to me and I said I was quite willing he should take the case, and I remarked that to me it was a club case, but he must see he got his fees. I have since found that the throat trouble disappeared in a day or two and then brain symptoms set in—it was thought as a result of an accident received some months previously. The medical man in attendance wished for and obtained a consultation with a surgeon in the town with a view to trephining and the patient was removed to the infirmary for operation, where he fortunately recovered without operation in a few days. But I heard nothing more of the case from the time the second practitioner was called in till a few weeks later, when the patient wrote a letter to the secretary of the society in which he complained of neglect and demanded from me payment of the second medical man's bill and the consultant's fee (amounting altogether to six guineas) and said he thought the way he was "treated was not fit for any human being" and he further complained of my sending my assistant. I refused to pay the bill and denied neglect. I consider I was under no contract to see the man at any given time, although I promised to call in the morning. It is impossible to work a practice on these lines and the medical man himself must, in my opinion, be the best judge as to the relative urgency of each particular case.

The second practitioner who was called in, in reply to a note from me, writes as follows: "In answer to your letter I may say that when called to see the man S—— I found him suffering from acute tonsillitis, and in following out my routine practice in such cases I put him on anti-rheumatic treatment with a gargle of guaiac., &c. If I remember correctly the quinsy had cleared up by the next evening; at no time was it a bad one nor did it tend to suppurate. I should say that it was a rheumatic throat pure

and simple. When I first saw S—— he was a bit excitable, but it was not until after the throat cleared up that I noticed symptoms of brain irritation. Thinking that an operation would relieve the symptoms I called in Mr. A—— (surgeon). We both were of the opinion that an injury S—— received by walking against a peg in the dark was the exciting cause of the irritation. He was removed to the infirmary with the view of being watched carefully for localising symptoms when trephining was to be done, but luckily the case cleared up without. The case in the first instance was perfectly simple and straightforward. The brain irritation coming on after the tonsillitis was a coincidence, as I should say it would have come on in any case. The throat probably had a turn for the better before I saw him; hence the rapidity with which it cleared up."

What I want to know is, can I be compelled to pay this account? I am, Sirs, yours faithfully,

Oct. 11th, 1898. BETA.

MAIDSTONE AFTER THE EPIDEMIC.

(FROM OUR SPECIAL COMMISSIONER.)

A YEAR has now elapsed since the great typhoid fever epidemic of Maidstone. It is time, therefore, to inquire what practical lessons have been learnt and applied as the result of this calamity. As a rule epidemics prove an efficient form of chastisement—they are sometimes a blessing in disguise. They awaken the local authorities to a proper sense of their duties, they make the population realise the need of good sanitation, and public improvements are then undertaken which formerly would not have received the sanction of the ratepayers. An epidemic often conveys the moral that good sanitation, though expensive, is, in the long run, the truest form of economy. How far has this been the case at Maidstone? Of course, much time has been spent in discussing the cause of the epidemic. This is well and needful in its way, but such theoretical discussions are often apt to be taken as an excuse for postponing the application of practical measures. In the present instance there has been a tendency to gravitate towards two opposite extremes. On the one side the water is considered not merely the principal but almost the only cause of the epidemic. Others, and especially the friends of the water company, are anxious to show that the epidemic might have been due entirely to the condition of the drains and that there is no positive evidence to prove that the water was specifically contaminated. The truth probably lies between these two extremes. The defective condition of the drains may have rendered the population susceptible to typhoid fever; and when the water was contaminated this receptivity was made manifest by the rapidity with which the disease spread. But there is evidence to show that the disease continued to spread when there is every reason to believe that the water was no longer contaminated. From the commencement of the epidemic at the end of August, 1897, up to Jan. 20th of this year, when the last case occurred, there were altogether 1908 cases of typhoid fever notified. Allowing for the period of incubation, the effect of cutting off the supply of water from the sources stated to have been contaminated should have made itself felt by Oct. 10th, and it was from Sept. 9th to Oct. 5th that the great majority of the cases occurred. The epidemic went from bad to worse up to Sept. 20th and the improvement, though slight at first, commenced before any alterations were made in the water-supply. After Oct. 10th, when the effect of cutting off the suspected water-supply should have been felt, there occurred 357 cases. Thus the number of cases decreased while the people were still drinking the bad water, and they continued after they had ceased drinking this water. Probably the water was the vehicle by which the epidemic was so widely and suddenly spread, but it was not the only cause. This, nevertheless, is quite sufficient to warrant a severer control being exercised over the water-supply.

The first good result of the epidemic is the determination of the town council to obtain powers for the compulsory purchase of the water companies' property and thus bring the supply under their own control. But it would be a fatal mistake to imagine that this is all that need be done. The borough surveyor has very wisely urged the necessity of a house-to-house inspection of the whole town, and by this he means that every domestic drain is to be submitted to the water test where possible and to the smoke or "stink test" where water cannot be utilised for the purpose. This, indeed, has been already done with regard to a third of the houses and is one of the most useful and practical measures which could be adopted. Unfortunately, and in spite of the terrible warning received, the landlords are still in many cases very recalcitrant. In 1892 the medical officer of health reported that two-thirds of the houses were not properly drained; and it may safely be said that at the time of the epidemic half the closets in the town had no water-supply. These closets were only flushed by hand—that is, when the inhabitants thought fit to empty a pail of water into the drains. It is obvious that notices should be served on the landlords of all these houses to compel them to apply to the closets a 2-gallon waste preventer flush tank receiving a constant supply of water. Efforts have been made in this direction, but they have not met with the success which might be expected after the terrible lesson received. Notices to provide water for the closets have been served by the sanitary inspectors, but they are carried out very slowly. On the other hand, the town council hesitates to prosecute. Nor do the population appreciate the laws enacted for their own protection. Thus, for instance, when the vendor of milk proved to be adulterated was acquitted because of some legal quibble the people in the court applauded. There is still much narrow-mindedness prevalent among the population. The interests of the till too often predominate, and the petty tradesman fails to see that it is his duty to submit to some inconvenience and control so that the interests of the community at large may be protected. The milkman may desire to adulterate his milk, but he may not be so anxious to eat tuberculous meat. Yet the previous year the town council failed in a prosecution in respect of an alleged sale of diseased meat. If the butcher could only be made to understand that he has to drink adulterated milk and the milkman that he has to eat tuberculous meat there might be less applause in the court on the acquittal of the tradesmen. But this view of the situation seems to be too broad and far-reaching to come within the narrow mental grasp of some of the inhabitants. The pity of it is that the magistrates show that they are inclined to let matters slide instead of being eager to apply the law on every possible occasion. The lukewarmness of the magistrates has to a great extent paralysed the local authority. This was the complaint made before the epidemic, but it was natural to expect that such a disaster would have brought about a great alteration and that the magistrates would now have readily convicted whenever there was any transgression of the sanitary laws. Such, however, is not the case and the town council still hesitates to prosecute. As a consequence the work of supplying water to the closets is only progressing slowly.

To exercise a better control over domestic drainage it is proposed to permanently increase the sanitary staff at Maidstone. All new drainage is submitted to the water test, which is applied by the sanitary authority before anyone is allowed to inhabit the newly built house. When the same has been done to all the old houses and a proper supply of water provided for flushing purposes a very great improvement will have been realised, but the magistrates must give more efficient help in the accomplishment of this work. There will then still remain the question of the public sewers. It is proposed to dig up all the old brick sewers which existed previously to the adoption, some twenty years ago, of the general drainage scheme and replace them by hardware pipe drains. Doubts, however, may well be entertained whether this is sufficient. The fact that a sewer is of comparative modern build does not prove that it is free from defects. There is reason, on the contrary, to believe that some of the sewers of the new drainage scheme were badly laid and constructed, and these as well as the older sewers require repairs, if not reconstruction. Then there is the question of the ventilation of the sewers. In dealing with the epidemic last year I pointed out that the districts affected with the fever corresponded, not merely with the distribution of the Farleigh water-supply, but also with the higher levels of the town. It then occurred to me to suggest that perhaps the sewer air had a tendency to travel upwards and that therefore the houses on the higher levels were more impregnated

with emanations from the sewers than those situate lower down; indeed, it was most remarkable that the low-lying districts were almost entirely exempt from the fever. The only answer made to this suggestion is that the direction of currents of air in sewers is frequently from the higher to the lower levels. It is difficult, however, to see what this most obvious remark has to do with the question. Surely no one would be so foolish as to urge that currents of air always went in the same direction; it would be as reasonable to state that the wind always blew from the same quarter. The point is whether, at the higher levels, there is a greater escape of sewer air in the houses and streets than in the lower districts and at what time of day does this escape take place. The downward current of air is likely to be most frequent when there is the greatest flow of sewage, for the air is attracted by the water current. As the current decreases in bulk and strength the air is more free to follow its natural bent and travel upwards. This is more likely to happen at night, just at the time when vitality is reduced by sleep and the inhabitants are more susceptible to any noxious influence. Then, again, it is when the sewers are empty or nearly empty that the sewer air is likely to be affected by the deposits on the sides or walls of the sewer. Thus the outward flow of air takes place at the worst moment and this it is which should be considered when comparing the high with the low levels. Therefore the question arises whether some measure should not be adopted so that the sewers in the higher levels of the town should not serve as ventilating shafts for the sewers in the lower levels. This is the more important as it is now proved that several hundred cases of typhoid fever were not due to water contamination, though the great majority of these cases did occur in the higher districts of the town. In the conclusions of the Local Government Board report on the epidemic it is stated that probably Oct. 10th is too early a date for the limit of the influence of the Farleigh water-supply; Oct. 18th is suggested instead, and even then there remain 280 cases due to causes other than the Farleigh water-supply. But if 280 cases occurred and were due to other causes after this supply was cut off, how many cases due to other causes occurred before the Farleigh water-supply was cut off? It is absurd to conclude that these other causes came into operation only after the water from Farleigh was cut off. The probabilities are that when this was done their force was in a great measure spent, just as the force of the contaminated water was to a large extent exhausted and this some time before the effects of its suppression could be felt. But with regard to these other causes, whether partially exhausted or otherwise, whether acting during the distribution of the Farleigh water or after the supply of that water had ceased, in both and all cases the victims were nearly all residents living on the higher levels. Now, the old brick sewers which it is proposed to replace by hardware pipes are nearly all on the low levels; therefore this measure, though good enough in itself, does not meet the case.

The policy of the town council is to obtain a loan in order to purchase the waterworks, to rebuild the old brick sewers, and to increase its sanitary staff. This is all very good so far as it goes, but, as just indicated, it does not deal with all the phases of the problem at issue. It is also unjust to seek to spread the repayment of the loan over a long period of years. The blunders, I might almost say the crimes, have been committed by the present generation and the penalty must be paid by them. The inhabitants of Maidstone have neglected their public duties, they have consequently brought upon themselves a public calamity, and they want to relegate to the next generation the care of paying at least a part of the cost. Even now they are not doing their duty in full. There is unjustifiable delay in providing flushing apparatus to household drains, and transgressors against the laws of health are not punished with quick and certain speed. There is no ground, therefore, for putting in a plea to be relieved from the burdens which are the natural consequence of past and even present neglect. The true position of affairs must be looked boldly in the face. In the long run this will be the cheapest as well as the best policy.

NEWPORT (MON.) WATERWORKS.—Up to the present the expenditure by the Newport Corporation on the Wentwood waterworks scheme has been £128,228. The works are reported to be progressing satisfactorily.

NOTES FROM INDIA.

(FROM OUR SPECIAL CORRESPONDENT.)

Medical Reform in India.—The Progress of the Plague.

THERE being absolute freedom of medical practice in India qualified men have to contend against an unlimited competition from quacks. As the public and the State to a certain extent call for some guarantee of education and knowledge the same feeling has arisen here as in England that irregular practice should be put a stop to. The same arguments apply in the one case as in the other. There is at present no registration but this might be provided for at the same time as the suppression of any further creation of quacks. In the city of Bombay there are about half a dozen civilian British practitioners, there are the officers of the Indian Medical Service holding civil appointments, who are allowed private practice, and there are about 80 native qualified practitioners. The quacks and unqualified men are numerous, but their exact number is difficult to estimate. It has been urged also, as so many native practitioners have been educated in England, several of them holding very high qualifications, that some of the teaching and hospital appointments should be thrown open to competition. At the present time these posts are held exclusively by officers of the Indian Medical Service.

The course of the third plague outbreak in Bombay has shown a sudden and unexpected improvement. While it has been gradually developing week by week until for the week ending Sept. 13th the number of deaths from plague was recorded at 175, the number for the past week has fallen to 126. The total general mortality (748) has fallen also, although it is still considerably above the average (523). There is no cholera, the cases of remittent fever recorded are much fewer, and there are fewer deaths from phthisis and diseases of the respiratory organs. The present death-rate is 45·37 per 1000. A steady development of the recrudescence was looked for and perhaps, after all, the diminution may be only temporary. It is argued that the machinery for registration is improved, that from the absence of compulsory segregation the people are less afraid of plague and its consequences, and that consequently there is less concealment of cases. Notwithstanding the withdrawal of all severe measures the plague authorities are active. No less than 6543 houses were inspected last week, 326 were disinfected and, most important of all, 50 were vacated. These measure have been going on steadily for some time and it i probable that the continued vacation of the worst houses is now showing good results. In the Dharwar and Belgaum districts the epidemic is raging with increased severity. In other parts of the Presidency it is better. A record of 3731 cases and 3134 deaths in one week shows, however, the extreme virulence of the disease. Of these numbers Belgaum contributed 745 cases and 557 deaths, and Dharwar 1642 cases and 1300 deaths.

A fresh example of the value of prophylactic inoculation is given by the action of the Southern Mahratta Spinning and Weaving Company with regard to their employés at Hubli. Out of 1173 persons on the muster roll 1040 were twice inoculated, and of this number 22 died from plague, giving a mortality of only 2·1 per cent.; of the 58 once inoculated 8 died, giving a mortality of 13·8 per cent.; and of the 75 who refused inoculation 20 died, giving a mortality of 26·6 per cent. At Dharwar inoculation is now proceeding actively.

Calcutta being almost free from plague the staff has been largely reduced. The general mortality keeps low. Madras has now been admittedly attacked, as what are termed indigenous cases have occurred in the Anantapur and Bellary districts. In Madras city itself the general death-rate is abnormally high, being 56·3 per 1000, against an average of 48·1. Out of the 490 deaths recorded for the past week 41 occurred from cholera. There were no recorded cases of plague. Endeavours are being strenuously made to introduce inoculation into the various divisions.

Sept. 23rd.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Mercer's Hospital, Dublin.

THE dispute between the board of governors of Mercer's Hospital and the Dublin Corporation has recently been revived. It will be remembered that the municipal authorities refused many months ago to continue their annual grant of £300 to that hospital unless three members of the corporation were elected as annual governors of the institution. The hospital authorities replied that the terms of their charter rendered it impossible for them to comply with the wishes of the corporation. The matter, as far as the public was informed, remained in that condition until, at a meeting of the board of governors of Mercer's Hospital, which was held on Oct. 4th, a notice of motion was handed in: "That the governors of Mercer's Hospital regret that the Dublin Municipal Council, by withdrawing from the hospital the usual grant out of the Corporate funds, have inflicted a serious injury upon the poor of this city, and they feel bound on behalf of the poor to appeal from the municipal council to the Local Government electors of the city of Dublin." This elicited a letter from the chairman of the Finance and Leases Committee of the corporation, which appeared in the morning papers of Oct. 7th, in which it is stated that—

> The vote in favour of Mercer's Hospital has never been withdrawn. It is obtainable at any time that the governors comply with the very reasonable request of the corporation that three members of the corporation, nominated by the municipal council, should be elected to seats on the board. This the governors so far have declined to do. The position therefore is that sooner than elect as vacancies occur three governors from the members of the municipal council the board of Mercer's Hospital will deprive that institution of the sum of £300 per annum. The names of the members of the corporation nominated have been supplied to them long since. In exchange for a notification of compliance with this very reasonable condition the Finance and Leases Committee will issue a cheque for £300.

One of the governors of the hospital, Mr. Theodore Ryland, replied at once that they,

> The governors, were willing to comply with the request of the Municipal Council and were ready to elect the three members chosen by the Council, and so stated in a letter dated Oct. 25th, 1897, addressed by the Registrar to the Town Clerk. In order to carry out their intention in the proper way the governors took the opinion of eminent counsel as to the manner in which the three representative governors should be elected and were advised by him that they were bound by their charter and have not power to comply with the wish of the Municipal Council, however anxious they might be to do so.

Other letters and even leading articles have appeared in the public journals, but the difficulty seems as far from satisfactory solution as ever. The charter of the hospital will only permit the election of governors for life, while the expedient of electing for life with an understanding that the governors would retire after one year has been declared by eminent counsel to be illegal. No one seems to have suggested that the charter of the hospital might be altered in order to legalise the election of annual governors. If the board of Mercer's Hospital proposed to take the necessary steps the grant from the corporation would doubtless be paid at once.

St. Vincent's Hospital, Dublin.

The annual dinner of the medical staff and past students of St. Vincent's Hospital took place on Oct. 10th, when the proceedings were enlivened by a rather novel speech from Mr. M'Ardle. Referring to the question of what fee should be charged to a man who, though not a pauper, could not afford a guinea, Mr. M'Ardle is reported to have said:—

> There was a notion abroad that unless a man stuck up for a guinea fee his status was lowered. He (Mr. M'Ardle) would wish it to go forth from that meeting—if they all agreed to it—that there was no indignity in accepting such a fee as your *clientèle* could afford, and there were no by-laws of any club or association of their profession that limited in any way the fee for a medical practitioner. The rules and regulations of professional dignity in regard to fees were made for the purpose of circling around the higher members of the profession and keeping a barrier between them and their younger brethren. The sooner that that barrier was broken down the better it would be not alone for the profession themselves but also for the public.

There are many members of the medical profession here who do not share in the views of Mr. M'Ardle, but to whom it seems improper and unfair to his less fortunate brethren that a hospital visiting physician or surgeon of position should give advice for a lower fee than £1 or for practically anything that he can get.

The Meath Hospital and County Dublin Infirmary.

The inaugural address for the session was delivered at the Meath Hospital by Dr. Ormsby, one of the surgeons to the hospital, on the afternoon of Oct. 10th. The Lord Mayor occupied the chair, and a large audience, which included the President of the Royal College of Physicians and the President of the Royal College of Surgeons, was present. Dr. Ormsby's lecture, which dealt with the changes which had taken place in medicine during the last 100 years of progress, contained amongst many other instances an allusion to the system of bleeding for almost every ailment which prevailed a century ago. Lord Powerscourt, who was present, remarked that he remembered as a child "his father, who was ill of consumption, being bled constantly."

Pauper Nursing in Workhouses.

At a special meeting of the Armagh Guardians, held on Oct. 4th, to consider a letter from the Local Government Board in which they stated that they could not permit the continuance of an arrangement under which paupers with illegitimate children are employed in immediate attendance on sick persons of good character, and asking the guardians to reconsider their decision on the matter, failing which they would have no option but to call upon the medical officer to exercise the power vested in him by the rules and to see that the Board's regulations are carried out, an interesting discussion followed. The guardians decided to direct the master of the workhouse to remove all healthy paupers who have illegitimate children from the sick wards and to locate them in the department of the house to which they belong, and where such inmates are required to discharge menial duties in the infirmary, that they are to do so under the personal supervision of the nurses or paid attendants and to return to their department in the main building when no longer required in the sick wards. They further decided to write to the Local Government Board that they are of opinion that the nurses and attendants already appointed are quite sufficient for the duties which have to be discharged. Accordingly they emphatically decline to appoint any more until a trial is given to their suggestions. The whole question resolves itself into one of whether or not there shall be pauper attendance or nursing, and it is certain that the Local Government Board will insist that the pauper attendance must cease.

Clonavaddy Dispensary.

Mr. Gill, L.R.C.P. & S. Edin., has been appointed medical officer of Clonavaddy District of the Dungannon Poor-law Union, in the place of Mr. Thomas M. Jamieson, L.R.C.S. Irel., who lately retired after forty years' service

Resignation of Dr. Croker.

One of the oldest medical practitioners in Belfast, Dr. Croker, has owing to failing health been obliged to resign his appointment as medical officer of the Castlereagh Dispensary, a post he has held for thirty one years.

The Monaghan Water Scheme.

The Toghan scheme for supplying Monaghan with water has been adopted. By this plan a reservoir could be made by excavating about 10 acres and there would be an altitude of 220 feet. The site would be 3½ miles distant from Monaghan and the pipes could be laid principally along the road, and the estimated cost would be about £7075. The Local Government Board have still to sanction the scheme.

The Notification of Infectious Diseases

One of the Belfast morning newspapers, in giving a report of a meeting of the City Health Committee, which, they add, they learned unofficially, states that the question of the notification of the infectious diseases again formed the subject of discussion, and the action of certain medical practitioners who, it was alleged, had reported cases as typhoid fever which were probably "bogus" was criticised. It was suggested that these medical men should be prosecuted for obtaining money under false pretences, and some remarkably strong language was used concerning them by members of the committee. The chairman declared that there were undeniably some black sheep in the medical flock of Belfast, adding that the sooner they were pitched out the better. It was ultimately decided that a caution as to future conduct would suffice for the present. On public as well as professional grounds the action which certain members of the Public Health Committee are taking in reference to the

charges they are making against medical men is to be regretted, and instead of wasting their time in such a way they would be much wiser in trying to undo the terrible mistakes of the past. When the press, lay and medical, pointed out the insanitary condition of Belfast and when the outbreak of typhoid fever reached an alarming extent the Public Health Committee made their first charge against the profession. They said the medical men were duplicating the cases, forgetting altogether that in February, 1897, the medical officer of health at their request sent a circular to every medical man in Belfast calling attention to clauses in the Act which says that "every medical practitioner attending on or called in to visit the patient shall forthwith ..... send to the medical officer of health ..... a certificate ..... or shall be liable ..... to a fine not exceeding forty shillings." Further, the medical officer of health in this circular added: "As the benefits accruing from this Act will largely depend on the action of the members of the medical profession he would earnestly request their coöperation in the working thereof." The medical men had no other course, no matter how many saw a case, but to report it; if the Public Health Committee had a competent clerical staff any duplication of returns would have been corrected. The next charge against medical men is much more serious: it is that of reporting "cases as typhoid which were palpably 'bogus.'" This is a very strong charge to make and the Public Health Committee should give the names of the medical men whom they incriminate in order that they might have the right of making a defence. The truth is that the Public Health Committee, by making these aggravating insinuations, as well as by their apparent incapacity to deal with the very grave insanitary condition of Belfast, are losing completely the confidence of the public as well as of the medical profession, who could afford them so much help in dealing with a confessedly difficult problem. The sad part of the matter is, that typhoid fever is not being stamped out; on the contrary, it still is very prevalent in the city. The Public Health Committee should coöperate with the medical profession and should show their gratitude to the press and to medical journals like THE LANCET, which has taken such pains to point out the insanitary condition of Belfast and their duty regarding it.

The Belfast Asylum.

At a meeting of the Belfast Asylum Governors, held on Oct. 10th, a report of the Visiting Committee was submitted in which they reported with pleasure the marked improvements they had observed since their last visit eighteen months previously. The present medical superintendent, at comparatively small cost, has made wonderful changes in the Purdysburn Asylum. Further, they said they could not speak too highly of the improvements in the old building at Belfast, notably the new baths and the arrangements for carrying out the bathing. The committee say they confess they did not think it possible to effect such a transformation in the old building and they congratulate the medical superintendent on the energy, skill, and good judgment he has displayed in generally affecting such reform.

Oct. 11th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The Congress of Gynæcology, Obstetrics, and Pædiatrics at Marseilles.

ON Oct. 8th the opening sitting of the Congress of Gynæcology took place in the large theatre of the School of Medicine. Dr. Pinard, of the Faculty of Paris, presided, and was assisted by Dr. Pozzi and M. Broca of the University of Paris. The opening address was given by the Mayor of Marseilles as a welcome to the members of the Congress. Dr. Pinard, who followed, described the objects of the Congress, one of which was to further the protection of women and children. He expressed the opinion that every large town should have an asylum for pregnant women and special provision for children of tender years. After him Dr. Pozzi, a member of the Senate, spoke on the subject of Gynæcology and laid down as an axiom that this branch of medicine was of special value in preserving the life of woman without neglecting the preservation of her creative faculty. M. Hoffa of Würzburg read a paper upon Orthopædics and drew special attention to the perfection at which this science has arrived in France. Professor Solovieff of Moscow said a few words of thanks to the Congress and Professor Jonnesco of Bucharest, the official delegate of the Roumanian Government, spoke very happily as to the reciprocity in thought and feeling which existed between the two countries. Lastly, Dr. Livon, the director of the School of Medicine of Marseilles, thanked all the members of the Congress for having attended in such numbers. The Congress is to last throughout the week. It is divided into three sections to deal with the following subjects:—Section 1: Gynæcology; President, Dr. Pozzi. Diagnosis and Treatment of Extra-uterine Pregnancy. Section 2: Obstetrics; President, Dr. Pinard. Auto-intoxication of Pregnancy. Section 3: Pædiatrics; President, M. Broca.

The Pasteur Institute.

On the third anniversary of the death of Pasteur, Professor Metchnikoff, the acting director of the Institute in the rue Dutot, owing to the absence of M. Duclaux and Dr. Roux, called together the professors, the medical men, the laboratory assistants, the administrative staff, and the servants of the Institute. With Professor Metchnikoff at their head they all descended into the crypt where rest the remains of the master and walked in solemn silence round his tomb. Opposite the Institute in the rue Dutot the administrative council is constructing a building upon a plot of land given by an anonymous benefactor, the expenses of which are defrayed by the gift of 2,000,000 francs (£80,000) made two years ago by the Baroness Hirsch. The material is red brick and the buildings are almost exactly like the Pasteur Institute except that they are one storey higher. They contain theatres and laboratories. For patients affected with diseases which have been specially investigated by Dr. Roux a hospital is being built at the end of the rue Vaugirard, and the director of it will be M. Martin, the brother of the architect in charge of the works. The opening, however, cannot take place before the end of 1899, and as a matter of fact there are only 20 workmen employed on the building at present. The foundations are nearly completed and but for the stoppage of work due to the strike it was hoped that the masonry work would have been finished before the beginning of the winter, so that once the roof was on work could have been continued during the winter, however cold it might be.

The Oil Motor Tricycle for Medical Men.

A question much debated among medical men at present is how far a carriage and horses may be replaced by the oil motor tricycle. In the review of the French Touring Club, Dr. Leon Petit said a great deal about the evils of the tricycle at present in fashion. On the other hand, Dr. Boulle of Buis has written an answer full of figures showing considerable advantages in the tricycle. According to him a tricycle of 1¾ horse power is far superior to a carriage. He balances his statement as follows: purchase price of 2 horses, 2 carriages, and harness, 3300 francs (£132); various annual expenses, 2400 francs (£96); primary expense of a tricycle, 1250 francs (£50). This would be second-hand, it is true, but it is quite possible to get a new one of the very first rank for 1500 or 1700 francs; upkeep, 730 francs (£29); to which must be added 150 francs (£6) for twenty days in the year when, on account of bad weather, Dr. Boulle has been compelled to pay his visits by means of a hired horse and carriage. The total expense of upkeep, therefore, amounts to 880 francs (£35). Dr. Boulle ran 20,000 kilometres (12,500 miles) over abominable roads without any serious wear and tear. The whole subject is of interest as clearing up in some measure a question of great importance to country practitioners.

The Increase in the Number of French Specialists.

At the congress recently held at Nantes Dr. Polo remarked upon the manner in which specialist practitioners have increased in France to a far greater degree than general practitioners. In Paris in 1892 there were 2125 medical men, of whom 234 were specialists. At Nantes at the same time there were 100 medical men and 7 specialists. At the present time the number of specialists is doubled in both those towns, although the number of general practitioners has increased in a very much smaller proportion.

The Training of the Corps de Santé.

The three days' training of the Corps de Santé took place on the plain of Avaron on Oct. 6th, 7th, and 8th, and the

members of the medical reserve, including the civil medical practitioners of Paris, took part in it. Everything had been admirably organised beforehand. The opposing forces were divided into two, one to attack the position on the plain of Avaron and the other to defend it. After the battle the Corps de Santé proceeded to pick up the wounded on the field, and to make the task of the bearers easier every wounded man was duly labelled with a ticket showing the nature of his injury, as, for instance, "fracture of the skull," "punctured wound of the thorax." The wounded men were told off to go to that ambulance which was specially appropriated to the gravity of their case and the urgency of their symptoms. Some were treated on the field itself, others were carried on stretchers to the ambulance of their own division, and others were sent to the temporary hospital—that is to say, the field hospital. On the day following various experiments were made in the transport of the wounded by means of ordinary country waggons transformed into temporary ambulances by means of special appliances, while other wounded were carried in the coal barges on the canal. A large crowd "assisted" at the manœuvres, which were very successful.

The Admission of Well-to-do Patients to Hospitals.

The action of Dr. Variot, as reported in my letter of last week, continues to occupy public attention, and the political press in general blames his conduct. They argue on the one hand that it is not possible for the medical man to decide merely by the dress whether the patient is indigent or not—which is a perfectly reasonable opinion, but it only proves that some steps ought to be taken by the administration of the hospital before the patients are admitted to get some proof of their poverty from would-be patients. But at the same time these papers uphold the dangerous theory that the medical officer of the hospital has no right to refuse gratuitous attention to anybody who comes, and some of them argue that the hospital ought to be perfectly open and free to everybody, whether poor or not. This extraordinary pretension would result in the State-supported hospitals coming into bitter conflict with the ordinary medical men in the town, who are already not so very well off, and for those medical men practising in working-class quarters, who already have to content themselves with very small fees, the result would mean ruin. To those practitioners who work among the higher class the loss would be very considerable if everybody had a right to gratuitous advice, for many of their patients would then come to see them at the hospital instead of consulting them at their own homes. The Director of the Assistance Publique, to whom complaint was made by the would-be patient of Dr. Variot, has referred the case to the governing body of the Assistance Publique, who will decide on the matter. Meantime the daily papers credit the Director with a policy which is certainly disquieting to medical men—namely, that it is intended to hang up in the consulting-rooms a box in which well-to-do patients may place a sum proportionate to their means and satisfactory to their consciences. The only result of this will be that non-indigent persons will be able to exploit the medical men in perfect security.

Oct. 10th.

EGYPT.

(FROM OUR OWN CORRESPONDENT.)

Egyptian Army Medical Staff.

THE medical arrangements of the late campaign were well organised and excellently carried out and reflect the greatest credit on Colonel Gallwey, C.B., who is now the fifth medical officer on the seniority list of the Egyptian army. The whole of the *personnel* were concentrated at the Atbara on August 20th ready for the forward movement. Captain Penton was made senior medical officer of the infantry division, and Captain Whiston, Captain Spong, Captain Jennings, and Captain Dunn were each placed in medical charge of a brigade. Each had under his orders 16 non-commissoned officers and men, a section of field hospital, all extra dressings, stretchers, cacolets, medical comforts, and a Congo chest. Every regiment carried with it a native medical man with his pocket case and morphia syringe, first field dressings, field panniers, medical comforts, and two stretchers per company with drilled bearers. Captain Hill Smith was made responsible for the mounted troops, which carried with them cavalry haversacks of surgical instruments, extra field dressings, and a mounted orderly with his belt full of drugs for emergencies. Captain Bray and two British non-commissioned officers were in charge of two hospital boats, carrying extra hospital equipment, tents, filters, and cooking and invalid necessaries. On the eventful fighting day, Sept. 2nd, the sections of field hospitals were not in action but were in their proper place with the main baggage camels. All the medical staff was ordered after the battle to concentrate at one spot with their wounded and the two hospital boats. This spot was fixed next morning at a place about four miles north of Omdurman and a hospital was then formed to accommodate 600. As a matter of fact the total number of sick and wounded during the first week after the battle was 584. All the day of the fight the wounded came dropping in and were attended to at the original zareba, the Nile bank, and on the barges. The total number of wounded was 286, half being blacks and the other half Egyptians. The whole number of killed and of those who were so dangerously wounded that they died within a week after the battle was only 49. Only 50 of the Egyptian army were wounded in the zareba and 6 were killed; the remainder of the wounded were injured at the time when the Dervishes tried to rush Colonel Macdonald's brigade. It is an old story now how well he and his Soudanese behaved at that time, but honour must also be given to Colonel Pink's battalion of Egyptians who formed part of that brigade. There were only 8 British medical officers at the battle, with 18 native medical men and apothecaries and 150 non-commissioned officers and men. Captain Spong and Captain Hill Smith have now been in all the engagements since Dongola and are already entitled to 6 clasps, being among the 13 officers who will receive the maximum number of clasps. Among other work done by the Egyptian army 8 gunboats were equipped with medical and surgical necessaries, though the English army had to supply the medical officers. 2 communication hospitals were established at Nasri Island and Gebel Ryan for the reception of the sick during the advance. When the British troops had left Omdurman 150 Egyptian sick were at once sent to Cairo, and now 100 slightly wounded Egyptians have been removed to Cairo, whence they will be sent to their village homes to convalesce. The black sick and wounded have all been left at Omdurman, because they are quite at home in that climate and because the whole of the medical staff is still concentrated there. The wounded are in tents on clean desert ground and the sick are in houses supplemented by shaded huts of straw and wood built by the Soudanese.

Present Medical Arrangements.

Captain Penton remains as the senior medical officer at Omdurman with Captain Jennings, Captain Spong, and Captain Dunn. Captain Whiston is with the mounted troops at Wad Hamad, Captain Hill Smith is marking time at Fashoda, Captain Bray at the Atbara, and Captain Wanhill at Wady Halfa. While all this has been going on Captain Fleming has been at Kassala, and now he telegraphs that all his 50 wounded are doing well. At the recent battle of Gedarif the Kassala garrison had 40 killed by the Dervishes, but no British officer was hurt. Now General Hunter has gone up the Blue Nile to join hands with Kassala and the railway between Atbara and Khartoum is being surveyed on the east bank of the Nile. These 200 miles will be in working order in about a year's time and where the Atbara is low a bridge will be built. As an instance of how rapidly events follow just now in the Soudan it may be pointed out that 800 blacks who fought with the Dervishes against us less than a year ago at the Atbara formed part of the Egyptian army which smashed the Khalifa last month. Of these 800 only 13 tried to desert; they were shot.

Port Said Hospitals.

The Egyptian Government hospital with its 100 beds is now under the care of Mr. W. B. Orme, Mr. F. R. Milton having been promoted to the post of junior surgeon at Kasr el Aini Hospital, Cairo. The hospital does very good work and natives come from great distances to get surgical aid. Dr. E. Cuffey, at present a naval surgeon at Crete, has been elected to the post of resident officer at the British Hospital, to succeed Mr. Foster-Foster, who died recently. This hospital is a wooden building of about 30 beds which has almost served its term of years. It is unbearably hot in the

summer, but there do not seem to be any funds forthcoming to provide a permanent structure.

Cairo, Oct. 3rd.

AUSTRALIA.

(FROM OUR OWN CORRESPONDENT.)

Infectious Diseases in New South Wales.

MEASLES, scarlet fever, and influenza are exceptionally prevalent in New South Wales. Scarlet fever alone is notifiable and the number of cases reported for the fortnight ending August 12th was 230, and the same number was reported for the preceding fortnight. Measles seem to be almost pandemic. The disease is raging in all the Australian colonies and has broken out in Fiji, where it is exceedingly fatal to the native population. In New South Wales, as in Victoria, a large proportion of adults have been attacked (about 1 adult to 9 children has been estimated as the probable proportion). Influenza has also been again very prevalent in New South Wales, chiefly in its catarrhal form, while pneumonia as a sequel of all three forms of epidemic disease has been a prominent factor in the mortality bills. It need hardly be said that the general medical practitioner has been kept very busy in the chief centres of population in New South Wales during the last month or two.

Metaphysical Healing and its Results.

Some time ago a so-called "Professor" Mills and his wife arrived in the Australian colonies from America as apostles of "Metaphysical Healing." They had a moderate amount of success in Melbourne, but in Adelaide the movement "caught on" in a remarkable manner. A "Metaphysical Society" was founded and a sort of hospital, known as the "Home of Truth," was established, where patients willing to submit to the new treatment were received. Everything went on satisfactorily until the beginning of August when a somewhat sensational case occurred. A girl who had undergone several operations for hydatids and had made arrangements for another operation by Dr. Poulton was induced to go into the "Home of Truth" without her mother's knowledge. When the mother discovered her and brought her home she was insane and had to be sent to the Parkside Asylum. Needless to say the hydatid was not cured. Her brother on meeting one of the founders of the "Home of Truth" gave him a sound thrashing, to which no resistance was offered.

Presidential Address.

In his address to the South Australian branch of the British Medical Association the retiring President, Dr. Anstey Giles, dealt at some length with the difficulties at the Adelaide Hospital, giving a *résumé* of the main facts of the squabble up to date and from the point of view of the old honorary staff. He denied emphatically that the action of the late staff was influenced by political considerations and he also denied that by the action of the staff on resigning the hospital patients were left without medical aid, as the staff expressly notified their willingness to attend until suitable arrangements were made for carrying on the work. Reference was then made to existing difficulties among members of the branch arising out of the hospital dispute. Some of the members of the branch had accepted positions on the honorary staff of the hospital and certain other members had requested the council to call a special meeting for the purpose of expelling the members who were on the staff. The meeting was held and decided not to adopt any extreme measures and in consequence seven of the most active members of the branch resigned. Dr. Giles regretted very much that these members should have been compelled by a stern sense of duty to such a course, but admitted that they had acted with the very highest motives and at great self-sacrifice in the interests of the profession.

Eye Specialists to Lodges.

The Council of the New South Wales branch of the British Medical Association having had its attention directed to an advertisement calling for applications from eye specialists to attend the members of a friendly society asked the opinion of the ophthalmic surgeons practising in Sydney on the subject. The following reply was received and approved by the Council: "At a meeting of medical men practising as specialists in the diseases of the eye it was unanimously resolved, 'That the Council of the B.M.A. should condemn the appointment of eye specialists by lodges and that the Council be requested to discountenance the introduction of the principle of club practice in connexion with special work.'"

Pulmonary Hydatids.

At the last meeting of the Medical Society of Victoria Dr. A. J. Wood read notes of three interesting cases of hydatid of the lung in children. In the first case the Russell-Bond method of treatment was adopted, the wound in the parietes being closed after removal of the endocyst; in the second case the wound was only partially closed but not drained; in the third case the wound was drained. All did well, but in the first case the recovery was most rapid, and Dr. Wood was of opinion that the other two cases might have been more satisfactorily treated by the Russell-Bond method. In the discussion which followed Mr. Russell objected to treating pulmonary hydatids by his method owing to the danger of producing general emphysema. Dr. Wood pointed out the danger of exploring pulmonary hydatids with a needle. Bronchial tubes open on the adventitious capsule and when the intracystic pressure is lowered the cyst is apt to rupture and the fluid contents escape inside the adventitia and then into the bronchi and so asphyxiate the patient. The risk of operating on pulmonary hydatids is also well exemplified in a case recorded by Dr. H. C. Hinder in the *Australasian Medical Gazette* for August. The patient was a girl, aged eight years. When a knife was passed into the cyst over the dulled area the opening was stopped with the finger and the fluid allowed to escape slowly. When about 1½ oz. had escaped she coughed and blood escaped from the mouth and from the cyst in large quantity and she died almost immediately. Post mortem it was found that the adventitia communicated directly with the left bronchus and pulmonary artery, each communication admitting a No. 12 catheter. During life the tense endocyst completely blocked the opening, but of course the moment the tension was relieved the artery was opened.

Inguinal Hernia in Childhood.

In a very able and thoughtful paper read before the August meeting of the Medical Society of Victoria Mr. Hamilton Russell strongly advocated the necessity of radical operation in every case of inguinal hernia in childhood. He maintained that in the normal and properly developed canal of a child where the funicular process is obliterated a hernial protrusion is impossible owing to the sphincteric action of the muscular fibres of the internal oblique. The main factor in the occurrence of inguinal hernia in childhood is a patent funicular process. Truss treatment fails to cause obliteration of this process and a patient so treated is always liable to the sudden descent of the hernia and especially to acute strangulation. The only satisfactory method of treatment and all that is required is to remove the congenital sac by operation.

Removal of Scapula.

The new operating theatre at the Melbourne Hospital was crowded to excess on August 25th, when Sir T. N. Fitz-Gerald removed the arm, scapula, and clavicle (by Berger's operation) for an enormous sarcoma of the upper end of the humerus which had followed an injury received three years previously. The interest in the case was the immense size of the growth, the anatomical relationship of the parts being greatly disturbed by its invasion of the axilla and root of the neck. The patient is doing well. In the *Inter-colonial Medical Journal* for August Dr. R. H. Marten records a case in which in April, 1896, he amputated at the shoulder joint the left arm of a woman, aged twenty-six years, for a spindle-celled sarcoma of the upper end of the humerus. In August, 1897, the growth recurred on the scapula, and on August 23rd he removed the scapula by a modification of Berger's method, the subclavian artery being tied at the end instead of the beginning of the operation. Recurrence took place in the lungs a year after the second operation and proved fatal. The original onset and each recurrence was coincident with pregnancy and her eldest child had sarcoma of the eyeball.

Dr. Marten believes the pregnancy influenced the growth and when the patient became pregnant after the second operation felt justified in inducing abortion.

August 28th.

Obituary.

MAURICE DAVIS, M.D. ST. AND., M.R.C.S. ENG., L.S.A., J.P.

ON Sept. 29th, at his residence, 11, Brunswick-square, Bloomsbury, in the seventy-seventh year of his age, Dr. Maurice Davis peacefully passed away. Born in Oxfordshire in 1821, he entered King's College, London, as a matriculated student in 1849 and received the diploma of Associate of the College in 1852. In the same year he received all his medical qualifications — M.R.C.S. Eng., L.S.A. Lond., M.D. St. And. On the completion of his curriculum he betook himself directly to the practice of medicine and threw all his energies into the building up of a splendid practice instead of seeking appointments at at his hospital and medical school. Had he sought such appointments he would doubtless have been as successful a teacher as he was a practitioner. In October, 1837, he was placed on the Commission of the Peace for the County of Middlesex and Liberty of Westminster and became by statute a justice of the peace also for the new County of London. By this appointment he became an *ex-officio* member of the board of guardians of the parish of St. Pancras. He served for a time on the committee of the infirmary at Highgate. He was a member of the council of the Metropolitan Branch of the British Medical Association and also of the board of directors of the Society for the Relief of Widows and Orphans of Medical Men. He occupied for some years a seat at the Jewish Board of Guardians until obliged to resign by stress of work, retaining, however, his connexion with the board through the sanitary and industrial committees as its medical adviser. For a considerable period he served as a member of the council of the Anglo-Jewish Association and of the medical staff of the Jewish Convalescent Home. Dr. Davis possessed literary gifts of a high order. He contributed to the *Sanitary Record* and a series of valuable communications on "Sanitary Defects in Houses" from his pen appeared in that paper from 1884 to 1890. In 1875 an interesting essay appeared in the *Jewish Chronicle* entitled "The Cosmopolitanism and Longevity of the Jewish Race." In some addresses for dramatic performances and extravaganzas he was happy in subjects and methods of treatment. These were written for the benefit of King's College Hospital and the Great Northern Central Hospital, of which latter he was a life governor. He possessed a technical and wide knowledge of architecture, and perhaps there is not a cathedral in Europe worth seeing which he has not visited. One of the truest of friends, ever ready to help in any difficulty, he was a staunch supporter of the honourable traditions of the medical profession and on every occasion displayed a whole-hearted loyalty towards his medical brethren.

He married in 1854 Esther, daughter of James Graham Lewis, founder of the firm of Lewis and Lewis, solicitors, Ely-place. On the death of his wife in 1891 he retired from the active duties of medicine, but not into idleness. He devoted much time to judicial work and especially (in his magisterial capacity) to the examination of lunatics. The number of cases examined in his district, together with those arising out of his duties as one of the committee of visiting justices at Holloway Prison, amounted to from 300 to 400 every year.

WILLIAM RUTHERFORD ANCRUM, F.R.C.S. ENG.

IT is with regret that we announce the death of Mr. William Rutherford Ancrum, which took place at his residence, St. Leonards Court, Gloucester, on Oct. 9th. For a very long period the name of Mr. Ancrum was closely associated with some of the most important matters of administration in the county of Gloucester, and it would be well nigh impossible to overrate the value of the public work which he accomplished. It is just three years ago since the state of Mr. Ancrum's health compelled his retirement, and deprived the county of his eminent services. He was taken ill at a meeting of the county council in October, 1895, and since then his health had been gradually getting worse.

The late Mr. Ancrum had attained the advanced age of eighty-two years, he having been born at the Manor House, in the village of Weston, near Bath, on Feb. 5th, 1816. He was educated at private schools and he entered University College Hospital, London, in 1834. In 1839 he took the M.R.C.S. Eng. diploma, and became house surgeon at the hospital. Three years later he went to Mexico, and was in practice in the city of Mexico and surrounding district for five years. In 1848 he was appointed surgeon to the Naval Hospital in Valparaiso, where he also had a large and lucrative private practice. He held that appointment for eleven years, coming home on one occasion to pass the examination for the Fellowship of the Royal College of Surgeons of England. On his return to England Mr. Ancrum spent three years in London. Early in 1863, having retired from practice, he purchased St. Leonard's Court, where he resided until his death. Two years after he had taken up his residence in the county he was placed on the Commission of the Peace for Gloucestershire and for thirty years he took an active interest in his magisterial duties, both as regarded the police-court and the quarter sessions, and on the death of Sir William Guise he became chairman of the Gloucester County Bench. Mr. Ancrum took a very great interest in the Gloucester Infirmary, of the governing body of which he was chairman for twenty-seven years, and on his retirement a special resolution was passed recording the invaluable services which he had rendered and the great practical good which had resulted from his wise administration during that extended period. Subsequently a ward in the infirmary was designated the "Ancrum Ward" in recognition of his distinguished services to the institution.

On the death of Mr. S. S. Dickinson in 1878, Mr. Ancrum was appointed chairman of the committee of Wotton County Asylum, and it was through his influence and direction that the Second County Asylum was built and successfully financed in 1882. He was elected chairman of the Barnwood House Private Asylum also in 1878, and under his guidance the institution was considerably enlarged and several important additions were made to the buildings. He was a member of several committees of the old court of quarter sessions and then of the county council, of which he was an alderman, and he succeeded Mr. Brooke Hunt as chairman of the prison committee of visitors. In 1852 he married the youngest daughter of Mr. Arthur Lewis, of Brighton, who survives him, and he leaves a family of three sons and two daughters. The funeral took place on Thursday, Oct. 13th, at Upton St. Leonards.

DR. JEAN CROCQ.

THE death of Dr. Jean Crocq occurred very suddenly in Brussels on Sept. 18th. The Brussels University loses in him one of its oldest and most eminent professors, and he was without doubt one of those who have contributed most fully to spread the fame of that University throughout not only his own country but also foreign lands. Dr. Jean Crocq was born at Brussels on Jan. 23rd, 1824, and studied at the Universities of Ghent and Brussels, obtaining the degree of Doctor of Medicine, Surgery, and Midwifery in May, 1848, and *docteur agrégé* in October, 1848. In 1849 he became prosector in the anatomical department and he published his great work on "White Swellings of the Articulations" in 1853. Of all his work this is without doubt the most important and that which placed him obviously on a par with his most illustrious colleagues De Roubaix and Thiry. In 1855 he was nominated extraordinary professor and in 1856 surgeon to the Grand Hospice, where he had charge of the wards for the aged until 1860, in which year he was made professor and visiting physician to the Hospital of St. Pierre. For twenty-five years he gathered around him a host of pupils attracted by his lectures and, dowered as he was with perfect scientific knowledge, with a prodigious memory, wonderful power of observation, and above all with a fluency of language, he was enabled to communicate to his pupils some portion of his own enthusiasm and to produce a profound impression by his

lectures which inspired his youthful hearers with admiration and warm affection for their master.

In his capacity of professor he occupied successively the chair of mineralogy and geology in 1861 and in 1866 that of general anatomy, and towards the end of 1868 he succeeded M. Le Beau in the department of pathology and therapeutics—a post he held for thirty years, to the end of his life, and in the carrying out of the duties of which he displayed an assiduity and earnestness which were universally recognised.

Having been elected a member of the Belgian Academy of Medicine in 1862 he took part in all the important discussions, notably that upon the case of Louise Lateau,[1] and those on the organisation and re-creation of faculties of medicine and the bringing about of a Central Institute for advanced studies. He was an indefatigable worker and almost to the last day of his life he devoted himself to the duties which he had undertaken. Busy as he was with much practice and with his hospital work he yet found time to establish a medical journal *(La Presse Médicale)* and an anatomical and pathological society, and to write numberless articles and papers, such, for instance, as Studies upon Anthracosis, on Vaccination and Contagious Ophthalmia, on the General Paralysis of Mania, on Cholera, on Fermented and Distilled Drinks, on Alcoholism, on Syphilis, on Hypnotism, on the Therapeutic Action of Digitalis, on the Action of Ergotine in the Treatment of Tuberculosis, and many other papers. Although everyone will not agree with the manner in which he treated all these subjects, yet whatever he investigated was handled in the same vigorous style, with the same absolute conviction and the same logical clearness of discussion. He was a strong partisan of his teachers and defended the ideas put forth by Broussais with an ardour and conviction which compelled the admiration even of those who did not agree with him. To the end of his life he remained bitterly opposed to the microbial theory of disease, though it must be allowed that he knew how to defend his opinions both in speech and in writing with a dialectical talent which made him no unworthy adversary. Apart from this point he was for a long time at the head of every medical scientific movement in Belgium. Despite his seventy-four years he had preserved much of the vigour of youth and his professional activity was such that his death came quite unexpectedly. The medical men of Brussels had decided to celebrate in his honour the fiftieth anniversary of his entrance into the profession, and this occasion would certainly have bound together the great majority of his medical brethren, for just as in his capacity of professor he had shown an example of absolute devotion to science, so as a physician he occupied the very first place and as a practitioner he leaves behind him the remembrance of one who was always a kindly colleague in whose hands the honour of the profession was perfectly safe. We need only further point out his devoted action in defending professional interests in the association of Brussels medical men and how at every discussion he was always attentively listened to. Among other marks of honour bestowed upon him the King of Belgium appointed him a Commander of the Order of Civil Merit.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.—The deaths of the following eminent foreign medical men are announced:—Dr. C. Morris Fisher, Professor of Histology in the Cooper Medical College, San Francisco.—Dr. Wiener, Extraordinary Professor of Midwifery and Gynæcology in the University of Breslau.—Dr. D. Toscani, Professor of Forensic Medicine in the University of Rome.—Dr. Simone Fubini, Professor of Materia Medica and Pharmacology in the University of Pisa.—Dr. A. J. M. de Hondt, chief medical officer of the Ostend Municipal Hospital and President of the local Medical Commission. He was Knight of the Order of Leopold and had the First-class Civic Cross. His age was sixty-five years.

---

[1] For an account of this case see THE LANCET of April 22nd, 1871, p. 543.

MANCHESTER MEDICAL SOCIETY.—At the request of the committee of this society an address was delivered on Oct. 5th by Mr. W. H. A. Jacobson, entitled "Some Remarks on Accuracy in Diagnosis or Clinical Precision—Some of the More Common Causes of Failure." Mr. G. Wright, President, was in the chair.

Medical News.

SOCIETY OF APOTHECARIES OF LONDON.—At the primary examination in October the following candidates passed in the subjects indicated:—

PART I.

Biology.—F. W. March, Durham, and Z. Rowlands, Royal Free Hospital.

Chemistry.—W. P. Allen, Birmingham; E. M. Forsyth, Royal Free Hospital; F. P. Joscelyne, Leeds; and J. S. Ward, Sheffield.

Materia Medica and Pharmacy.—G. M. Crockett, Royal Free Hospital; H. C. Jones, St. Mary's Hospital; M. E. Martin and L. G. Simpson, Royal Free Hospital; J. S. Ward, Sheffield; and A. F. Weston, St. George's Hospital.

PART II.

Anatomy.—A. O. Ashe, King's College Hospital; J. B. Bradley, Birmingham; J. Brownrigg, Liverpool; E. J. Crew, Guy's Hospital; B. M. Dunstan, St. Thomas's Hospital; C. A. W. Egan, Dublin; L. C. Ferguson, St. Bartholomew's Hospital; V. J. Glover, Liverpool; K. Heanley, Royal Free Hospital; B. I. Rahim, King's College Hospital; J. E. Skey, Westminster Hospital; L. K. Tickner, Durham; E. D. Townroe, St. George's Hospital; J. Waters, Middlesex Hospital; J. H. Williams, London Hospital; H. F. Willington, Manchester; and E. Yoxall, Birmingham.

Physiology.—A. O. Ashe, King's College Hospital; J. C. Baggs, St. Thomas's Hospital; J. Brownrigg, Liverpool; L. C. Ferguson, St. Bartholomew's Hospital; V. J. Glover, Liverpool; D. R. T. Griffiths, Guy's Hospital; K. Heanley, Royal Free Hospital; W. J. H. Hepworth, Edinburgh and St. Mary's Hospital; G. J. W. Keigwin, London Hospital; D. A. H. Moses, St. Bartholomew's Hospital; B. I. Rahim, King's College Hospital; H. H. Serpell, St. Bartholomew's Hospital; J. E. Skey, Westminster Hospital; H. O. Sutcliffe, Cambridge; E. D. Townroe, St. George's Hospital; J. Waters, Middlesex Hospital; H. F. Willington, Manchester; and E. Yoxall, Birmingham.

UNIVERSITY OF DURHAM: FACULTY OF MEDICINE.—At the Convocation held on Sept. 24th the following degrees were conferred:—

Doctor in Medicine.—Gilbert Gocher, M.B., B.S. Durh.; George Rome Hall, M.B., M.S. Durh.; Thomas George Smith Hodson, M.B. Durh.; Hugh Meyrick Meyrick-Jones, M.B., B.S. Durh.; Thomas Brice Poole, M.B., B.S. Durh.; Tom Sanderson, M.B., B.S. Durh.; George William Scott, M.B., B.S. Durh.; John Dee Shapland, M.B., B.S. Durh.; Frederick Hampson Simpson, M.B., B.S. Durh.; Charles Stewart, M.B., B.S. Durh.; Thomas Stratfeild, M.B., B.S. Durh.; William Rowland Thurnam, M.B., B.S. Durh.; Frederick Septimus Walker, M.B., B.S. Durh.; and Allan Warner, M.B. Durh.

Doctor in Medicine (Practitioners of Fifteen Years' Standing).—Thomas Wilson Aird, M.R.C.S. Eng., L.R.C.P. Lond.; Richmond Robert Allen, L.R.C.P. Edin., F.R.C.S. Irel.; Arthur Frederick Blagg, M.R.C.S. Eng., L.R.C.P. Lond., L.S.A.; William Edward Cree, M.R.C.S. Eng., L.R.C.P. Lond., L.S.A.; Edward Octavius Croft, M.R.C.S. Eng., L.R.C.P. Lond.; George William Hamilton Cumming, M.R.C.S. Eng., L.R.C.P. Edin.; Henry Peers Dimmock, M.R.C.S. Eng., L.R.C.P. Lond.; Alfred Wilson Emms, M.R.C.S. Eng., L.S.A.; George Frost, M.R.C.S. Eng., L.R.C.P. Lond.; William Henry Gimblett, L.R.C.P. Irel., L.S.A.; Benjamin John Glissan, L.R.C.P. Edin., L.F.P.S. Glasg.; Stanley Stenton Hoyland, M.R.C.S. Eng., L.S.A.; Albert Samuel Morton, M.R.C.S. Eng., L.S.A.; Thomas William Scale, M.R.C.S. Eng., L.R.C.P. Lond., L.S.A.; Henry Fraser Stokes, M.R.C.S. Eng., L.R.C.P. Lond.; Arthur Warburton, M.R.C.S. Eng., L.R.C.P. Lond.; and Thomas Wingrave, M.R.C.S. Eng., L.S.A.

Master in Surgery.—Wilfred Ernest Alderson, M.D., B.S. Durh.

Bachelor in Medicine.—Arthur Samuel Arthur and Joseph Ellis Baker, College of Medicine, Newcastle-upon-Tyne; Gerald Burton Brown, L.S.A., Guy's Hospital; Frank Anthony Cooke, Henry Coxon Coxon, and Leopold Stanley Davison, College of Medicine, Newcastle-upon-Tyne; Howard Henry Congreve Dent, M.R.C.S. Eng., L.R.C.P. Lond., Mason College, Birmingham; Charles Edward Fenn, King's College, London; Henry Adamson Fielden and John Maxwell Gover, College of Medicine, Newcastle-upon-Tyne; Herbert George Harris, M.R.C.S. Eng., L.R.C.P. Lond., St. Bartholomew's Hospital; Margaret Joyce, London School of Medicine for Women; George Whitson Middlemiss, College of Medicine, Newcastle-upon-Tyne; Robert Fletcher Moorshead, University College, Bristol; William Byron Milbanke, College of Medicine, Newcastle-upon-Tyne; Claudia Anita Prout Rowse, London School of Medicine for Women; Grace Harwood Stewart, London School of Medicine for Women; George Grey Turner, College of Medicine, Newcastle-upon-Tyne; Leslie Herbert Walsh, M.R.C.S. Eng., L.R.C.P. Lond., King's College, London; and William Henry Warwick, College of Medicine, Newcastle-upon-Tyne.

Bachelor in Surgery.—Arthur Samuel Arthur and Joseph Ellis Baker, College of Medicine, Newcastle-upon-Tyne; Gerald Burton Brown, L.S.A., Guy's Hospital; Frank Anthony Cooke, Henry Coxon Coxon, Leopold Stanley Davison, Henry Adamson Fielden, and John Maxwell Gover, College of Medicine, Newcastle-upon-Tyne; Herbert George Harris, M.R.C.S. Eng., L.R.C.P. Lond., St. Bartholomew's Hospital; Margaret Joyce, London School of Medicine for Women; Alfred Phillips Lloyd, M.B., and George Whitson Middlemiss, College of Medicine, Newcastle-upon-Tyne; Robert Fletcher Moorshead, University College, Bristol; William Byron Milbanke, College of Medicine, Newcastle-upon-Tyne; Grace Harwood Stewart, London School of Medicine for Women; George Grey Turner, College of Medicine, Newcastle-upon-Tyne; and Leslie Herbert Walsh, M.R.C.S. Eng., L.R.C.P. Lond., King's College, London.

Bachelor in Hygiene.—John Wreford, M.B. Durh., M.R.C.S. Eng., L.R.C.P. Lond.

FOREIGN UNIVERSITY INTELLIGENCE.—*Berlin:* Dr. Alfred Goldscheider, *privat-docent* of Internal Medicine, and Dr. Karl Horstmann, *privat-docent* of Ophthalmology, have been appointed Extraordinary Professors.—*Innsbruck:* Dr. W. Türk, Extraordinary Professor of Histology and Embryology, has been appointed Ordinary Professor.—*Lemberg:* Dr. Anton Mars of Cracow has been appointed Professor of Midwifery and Gynæcology and Dr. J. Wiczkowski has qualified as *privat-docent* of Internal Medicine.—*Naples:* Dr. Vincenzo de Meis has qualified as *privat-docent* of Medical Pathology.—*Prague (Bohemian University):* Dr. J. Hnâtek has qualified as *privat-docent* of Internal Medicine.—*Rio de Janeiro:* Dr. Miguel de Oliveira Couto has been appointed Assistant Professor of Pathology and Clinical Medicine.

UNIVERSITY COLLEGE, BRISTOL.—Professor R. Fanshawe delivered the opening lecture of the winter session at University College, Bristol, on Oct. 3rd. The subject was the English and Roman Empires. Professor Lloyd Morgan presided over a large audience.

CHORLTON UNION COTTAGE HOMES.—The cottage homes and schools at Styal built by the Chorlton Guardians were opened on Oct. 4th by the Marquis of Lorne. They are situated in a pleasant part of the neighbouring county of Chester and, so far as situation goes, are free from the suggestion of workhouse association. There is a probational lodge where new-comers will undergo a fortnight's quarantine to guard against the importation of infectious disease. The cottages, of which there are 17, are of red brick with terra-cotta facings and separated from each other by gardens where the children will be taught the cultivation of vegetables and flowers. Each cottage contains a day-room, a dining-room, offices, a bathroom, and bedrooms, and is in charge of foster-parents carefully chosen. Accommodation is provided for 310 children; there is a small Kindergarten school for the little ones, while for the older children there is a school planned to accommodate 500. There are workshops for the boys, where plumbing, bootmaking, carpentry, &c., will be taught, and swimming-baths, all good and useful arrangements, but all very different from the associations of family life, which it is impossible to produce wholesale, though the guardians have tried to create a passable imitation. The girls will be taught household work and domestic economy. There is also an isolation hospital with sixteen beds. The buildings and ground about them cover fifty acres. The whole is lighted by electricity. The cost to the guardians has been a little more than £50,000.

THE ABERNETHIAN SOCIETY OF ST. BARTHOLOMEW'S HOSPITAL.—The annual opening address of the above society was given at the hospital on Oct. 6th by Sir Thomas Smith. There was an enthusiastic audience of nearly 500 people. Sir Thomas Smith described his earliest impressions when he entered the hospital some fifty years ago, and from these comparatively remote times he traced the progress which had taken place in its administration, practice, and teaching, and he dwelt upon the gradual improvement in the manners and morals of its students. The first conclusion he drew as a student was that the good old days had passed away and that his "lot had fallen on evil times." This was the spirit which overshadowed the whole hospital and continued up to the time of Humphry, who was wont to exclaim, "Where are the giants of the past?" But this was not the right way to approach surgery. Too much stress was laid upon the dicta of their great predecessors and it must always be borne in mind that surgery has no fixed principles. Sir Thomas Smith spoke, too, of the great changes which had taken place in the curriculum required for examinations. In his time two and a half years was sufficient, now the minimum for any diploma was five years. He welcomed the emancipation of women, by virtue of which movement the nursing of the sick was now done by the educated and refined, to the benefit of patients and all concerned. The introduction of chloroform as a general anæsthetic and of antiseptic methods in surgery was also touched upon. After the address Sir Dyce Duckworth proposed a vote of thanks to Sir Thomas Smith, which was seconded by Mr. Bowlby, and cordially responded to by those present.

INFECTIOUS DISEASES HOSPITAL FOR NEWPORT (MON.).—On Oct. 7th a Local Government Board inquiry was held into the proposal of the Newport Corporation to borrow £7500 for the purpose of extending the Infectious Diseases Hospital.

A NEW COTTAGE HOSPITAL.—Mr. G. Wills has offered to endow a cottage hospital for Moreton Hampstead, Devon. A committee formulated a plan which the Hon. W.F.D. Smith so much approved of that he has proposed to give a site and erect the building.

THE STUDY OF THE SPANISH LANGUAGE.—With a view of helping the young men and women of England to obtain a commercial education fitting them to compete on equal terms with those of other nations, Sir Isaac Pitman and Sons, Ltd., announce another language weekly, in addition to their already popular French and German weeklies. The title of the new venture will be "Pitman's Popular Spanish Instructor," to be published weekly at 1½*d*. The idea is to thoroughly popularise the study of the Spanish language by furnishing from week to week useful matter for both the beginner and the advanced student in the form of business interviews, correspondence, commercial terms, &c.

GLASGOW MEDICO-CHIRURGICAL SOCIETY.—This society met for the first time this session on Oct. 7th, when the President, Dr. G. S. Middleton, gave a demonstration of cases. He showed (1) a case of Paralysis illustrating the difficulty of diagnosis between functional and organic disease; (2) a slightly marked case of Myxœdema in which the diagnosis had at first been missed, the patient having been treated for Bright's disease; (3) a case of Progressive Muscular Atrophy accompanied with Bulbar Paralysis; (4) a case of Paralysis Agitans affecting chiefly the left side and sparing the head; (5) a case of Disseminated Sclerosis in an Early Stage; and (6) a well-marked instance of Dermography.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—The School of Surgery has resumed work for the Winter Session. The following is a list of the prize-winners:—Barker's Anatomical Prize: Miss K. F. Lynn, £26 5*s*.; and J. S. P. Stewart, £15 15*s*. Carmichael Scholarship: C. R. Boyce, £15. Mayne Scholarship: D. Hadden, £15. Gold and Silver Medals in Operative Surgery: G. W. Little, gold medal; T. G. N. Stokes, silver medal; and S. R. Godkin, certificate of merit. Descriptive Anatomy: Junior—A. Charles, first prize (£3) and medal; and R. H. Oulton, second prize (£1) and certificate. Senior—J. P. Byrne, first prize (£3) and medal; and C. R. Boyce, second prize (£1) and certificate. Practical Anatomy: First Year—R. H. Oulton, first prize (£3) and medal; and T. C. Fitzgerald, second prize (£1) and certificates. Second Year—C. R. Boyce, first prize (£3) and medal; and J. F. Peart, second prize (£1) and certificate. Third Year—J. S. P. Stewart, first prize (£3) and medal; and T. C. Fitzgerald, second prize (£1) and certificate. Practice of Medicine: G. W. Little, first prize (£3) and medal; and J. S. P. Stewart, second prize (£1) and certificate. Surgery: D. A. Fitzgerald, first prize (£3) and medal; and H. H. Swanzy, second prize (£1) and certificate. Midwifery: D. A. Fitzgerald, first prize (£3) and medal; and M. Gavin, second prize (£1) and certificate. Physiology: J. F. Peart, first prize (£3) and medal; and J. P. Byrne, second prize (£1) and certificate. Chemistry: Miss M. J. Shire, first prize (£3) and medal; and L. C. E. Murphy and W. J. O'Doherty (equal), second prize (£1) and certificate. Pathology: J. S. P. Stewart, first prize (£3) and medal; and S. R. Godkin, second prize (£1) and certificate. Physics: Miss M. J. Shire, first prize (£3) and medal; and W. B. A. Moore, second prize (£1) and certificate. Practical Histology: J. P. Byrne, first prize (£3) and medal; and R. H. Oulton, second prize (£1) and certificate. Practical Chemistry: W. Delaney and Miss M. J. Shire (equal), first prize (£3) and medal. Public Health and Forensic Medicine: D. A. Fitzgerald, first prize (£3) and medal; and Mrs. H. L. Hennessy, second prize (£1) and certificate. Materia Medica: J. Levis, first prize (£3) and medal; and W. R. Meredith, second prize (£1) and certificate. Practical Pharmacy: E. Evatt, first prize (£3) and medal; and Miss M. J. Shire, second prize (£1) and certificate. Biology: Miss M. J. Shire, first prize (£3) and medal; and R. E. Humphrey, second prize (£1) and certificate. A supplemental entrance examination will be held on Nov. 1st.

ROYAL COLLEGE OF PHYSICIANS OF IRELAND.—At the monthly meeting of the College, held on Oct. 7th, William John Thompson, M.D.Dub., was admitted as Member.

FREEMASONRY.—*Rahere Lodge, No. 2546:* A meeting of this lodge was held at Frascati's Restaurant, W., on Oct. 11th, W. Bro. Burns, P.P.G.D. Surrey, being in the chair. Bros. Carnall and Hoyland were admitted to the third degree. Bros. Briggs, Mackintosh, Heath, Keats, Brewerton, and Burrows were admitted to the second degree and Mr. Coventon was elected a member of the Lodge. Two communications were read from the United Grand Lodge and the Deputy Master of the Sancta Maria Lodge, No. 2682, was elected an honorary member. The Brethren afterwards dined together.

BRITISH LARYNGOLOGICAL, RHINOLOGICAL, AND OTOLOGICAL ASSOCIATION.—The following gentlemen have been elected officers for the ensuing year 1898–99:—President: Dr. Middlemas Hunt (Liverpool). Vice-presidents: Dr. Davison (Bournemouth), Mr. John Bark (Liverpool), and Mr. Wyatt Wingrave. Council: Dr. Dundas Grant, Dr. W. Hill, Dr. Greville MacDonald, Dr. Abercrombie, Mr. Percy Jakins, Dr. H. Woods (Dublin), and Dr. A. B. Kelly (Glasgow). Treasurer: Dr. McNeil Whistler. Honorary secretaries: Mr. St. George Reid and Dr. Furniss Potter.

PRESENTATIONS TO MEDICAL MEN.—Dr. Francis J. Waring, of Eaton-road, Hove, honorary physician to the Police Seaside Home, Hove, has been presented with a black marble timepiece with Corinthian pillars of black bronze, with inscription, from many of the convalescents at the home, to which he has given his voluntary services during the past eight and a half years. Inspector Foot, C Division, Metropolitan Police, came from London to make the presentation in the presence of the policemen now resident in the home, Colonel Philips (chairman of committee), Mr. W. Berners Wilson, Miss Griffen (hon. lady superintendent), and others. Inspector Foot, in presenting the timepiece, said that the gift was in no way proportionate to the gratitude which hundreds of convalescent policemen felt for Dr. Waring's kind and efficient medical treatment, but they hoped he would accept it as a slight token of their deep appreciation of his valued and unwearied labours on their behalf. The inscription on the clock was as follows: "Presented to Francis J. Waring, Esq., M.D., M.R.C.S., by many of the visitors to the Convalescent Police Seaside Home, Hove, in recognition of his unwearied and voluntary services to them and their comrades for nearly nine years. September. 1898."—On Sept. 27th, at the Great Western Railway Station, Cardiff, after the annual distribution of certificates and medals for those employés who had successfully passed the examination for "first aid" in connexion with the St. John Ambulance Association, Mr. William Taylor, M.D., L.R.C.P. Edin., M.R.C.S. Eng., was presented with a silver cigarette case engraved with his initials in appreciation of his services as honorary lecturer of the class.—On Sept. 26th, in the council chamber, Macduff, a large number of the public assembled for the purpose of bidding farewell to Mr. A. B. Lyon, M.B. Aberd., on his leaving Macduff. Provost Bisset presided, and presented to him, on behalf of the subscribers, a gold watch and a purse of sovereigns, speaking in eulogistic terms of Mr. Lyon's personal character and ability.

BOOKS, ETC., RECEIVED.

BAILLIÈRE ET FILS, Paris.

Chirurgie des Voies Urinaires. Par Dr. E. Chevalier. 1899.

BAILLIÈRE, TINDALL, AND COX, King William-street, Strand, London.

A Short Manual of Analytical Chemistry. By John Muter, Ph.D., F.R.S.E. Eighth edition. Illustrated. 1898. Price 6s. 6d.

A Manual of Physiology, with Practical Exercises. By G. N. Stewart, D.Sc., M.D. Edin., D.P.H. Camb. Illustrated. Third edition. 1899. Price 15s. net.

BAUERMEISTER, F., Glasgow.

Methods of Staining the Nervous System. By Dr. B. Pollack. Translated from the second German edition by W. R. Jack, M.D., B.Sc. 1899. Price 4s.

Verhandlungen des sechzehnten Congresses für Innere Medicin. 1898. Price 12s.

Ernährung, Stoffwechsel und Kissinger Kuren. Von Dr. R. Brasch. 1898. Price 1s. 9d.

Verwertbarkeit der Bindehaut. 1898. Price 4s. 9d.

Gesichtastörungen und Uterinleiden. Von Dr. A. Mooren. 1898. Price 2s.

Ergebnisse der Allgemeinen Pathologie und Pathologischen Anatomie des Menschen und der Tiere. Von O. Lubarsch und R. Ostertag. 1898. Price 25s. 6d.

Tafeln zur Diagnose der Farbenblindheit. Von Dr. W. A. Nagel. 1898. Price 1s. 6d.

BLACKIE AND SON, London.

The Principles and Practice of Modern House Construction. Edited by G. Lister Sutcliffe. Illustrated. Divisional. Vol. 2. 1898.

CHURCHILL, J. & A., Great Marlborough-street, London.

Text-book of Histology, including the Microscopic Technic. By Dr. P. Stöhr. Second American from seventh German edition. Translated by Dr. Emma L. Billstein. Edited, with additions, by Dr. A. Schaper. Illustrated. 1898. Price 14s.

Diet and Food. By A. Haig, M.D. Oxon., F.R.C.P. Illustrated. 1898. Price 2s.

A Manual of the Practice of Medicine. By F. Taylor, M.D., F.R.C.P. Fifth edition. 1898. Price 16s.

Manual of Ophthalmic Surgery and Medicine. By Walter H. H. Jessop, M.B. Cantab., F.R.C.S. Eng. 1898. Price 9s. 6d.

A Synopsis of Surgery. By R. F. Tobin, F.R.C.S. Irel. 1898. Price 6s. 6d.

Commercial Organic Analysis. By A. H. Allen, F.I.C., F.C.S. Second edition. Vol. IV. Proteids and Albuminous Principles, Proteoids, or Albuminoids. 1898. Price 18s.

CONSTABLE, A, AND Co., Whitehall-gardens, London.

Emin Pasha, his Life and Work. By George Schweitzer, with an Introduction by R. W. Felkin, M.D., F.R.S.E. Vols. I. and II. 1898. Price 32s.

FISCHER, GUSTAV, Jena.

Die Krankheiten des Mundes. Von J. Mikulicz und W. Kummell. 1898.

Ueber die Wirkung des Neuen Tuberkulins TR. Von Dr. H. Stroebe. 1898.

Die Cholera Indica und Nostras. Von Dr. Th. Rumpf. 1898.

Handbuch der Therapie Innerer Krankheiten. Von Dr. P. Penzoldt und Dr. R. Stintzing. Parts 13, 14, 15, 16, and 17. 1898.

KIMPTON, H., High Holborn, London, W.C.

A Manual of Modern Surgery, General and Operative. By J. C. Da Costa, M.D. Illustrated. 1898. Price 21s. net.

Essentials of the Diseases of the Ear. By E. B. Gleason, S.B., M.D. Second edition. 1898.

A Text-book upon Pathogenic Bacteria. By J. McFarland, M.D. Illustrated. Second edition. 1898. Price 16s. net.

A Manual of Obstetrics. By A. F. A. King, A.M., M.D. Seventh Edition. Illustrated. 1898. 10s. 6d. net.

MACMILLAN AND Co., London.

The Living Organism: an Introduction to the Problems of Biology. By Alfred Earl, M.A. 1898. Price 6s.

A Clinical Treatise on Diseases of the Breast. By A. M. Sheild, M.B. Cantab., F.R.C.S. 1898. Price 15s. net.

METHUEN AND Co., Essex-street, London, W.C.

University and Social Settlements. Edited by W. Reason, M.A. 1898. Price 2s. 6d.

OBSTETRICAL SOCIETY OF LONDON, 20, Hanover-square, W.

Transactions of the Obstetrical Society of London. Vol. XL. For the year 1898. Part III., for June and July. Price 4s.

PERCY LUND, HUMPHRIES, AND Co., Amen-corner, London, E.C.

The Illustrated Annual of Microscopy. 1898. Price 2s. 6d. net.

ROJAS, R., Madrid.

Higiene de la Inteligencia. Por Dr. N. Mariscal y Garcia. 1898.

SIMPKIN, MARSHALL, HAMILTON, AND Co., London.

Clinical Observations on 2000 Obstetric Cases. By Porte Mathew, M.D. Cantab. Price 2s.

SMITH, ELDER, AND Co., Waterloo-place, London.

Dictionary of National Biography. Edited by Sidney Lee Vol. LVI. Teach—Tollet. 1898.

Skiagraphic Atlas, showing the Development of the Bones of the Wrist and Hand. By John Poland, F.R.C.S. 1898. Price 5s.

Traumatic Separation of the Epiphyses. By John Poland, F.R.C.S. 1898. Price 52s. 6d.

SOCIÉTÉ D'ÉDITIONS SCIENTIFIQUES, Paris.

La Tuberculose: sa Prophylaxie et son Traitement. Par Dr. E. Vigenaud. Prix 3 francs. 1898.

STOCK ELLIOT, Paternaster-row, London, E.C.

The People's Progress; In the Light of Concrete Revealings of the Mind. By the Rev. W. G. Davies, B.D. 1898.

SWAN SONNENSCHEIN AND Co., Paternoster-square, London.

Common Salt: its Use and Necessity for the Maintenance of Health and the Prevention of Disease. By C. G. Gümpel. 1898. Price 5s.

THE IMPERIAL PRESS, Surrey-street, Strand, London.

The Imperial Library.—Imperial Britain. By the Rev. T. Johnson In two vols. Vol. I., with Maps and Illustrations. 1898.

WATTS AND Co., Johnson's-court, Fleet-street, London.

A Plea for the Unborn. By Henry Smith. Second edition, with Appendix. 1897.

The Marlborough Series of Foreign Commercial Correspondence—German and English: by Mathias Meissner: edited by C. A. Thimm.

F.R.G.S. (E. Marlborough and Co., 51, Old Bailey, London); price 1s.—German Self-taught with Phonetic Pronunciation: by C. A. Thimm, F.R.G.S. (E. Marlborough and Co., Old Bailey, London); price 1s.—The Journal of Mental Science: October, 1898 (J. & A. Churchill, London): price 5s.—Current Observations on Essential Oils: by W. J. Bush and Co., Distillers of Essential Oils, Artillery-lane, Bishopsgate, London (Little and Son, printers, Bishopsgate-street Within, London, E.C.—Magazines, &c., for October: Strand Magazine, Boy's Own Paper, Girl's Own Paper, Leisure Hour, Sunday at Home, Ludgate Magazine, Westminster Review, Contemporary Review, Friendly Greetings, Chapman's Magazine, Myra's Journal, Pall Mall Magazine, Windsor Magazine, Cornhill Magazine, Blackwood's Magazine, Pearson's Magazine, English Illustrated Magazine, Knowledge, Humanitarian, St. Peter's Magazine, North American Review.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, for publication in the next number.*

BLUMFELD, J., M.D., B.C. Cantab., has been appointed Surgeon at the Chelsea, Brompton, and Belgrave Dispensary, S.W.

BULLMORE, CHARLES CECIL, L.R.C.P. & S. Edin., L.F.P.S. Glasg., has been appointed *pro tem.* Medical Officer for Mylor by the Falmouth Board of Guardians, vice E. Head-Moore.

BUTTERWORTH, J. J., M.B., Ch.B. Vict., has been appointed a Second Assistant Medical Officer for the Monsall Hospital.

CHANCE, A., L.R.C.P., F.R.C.S. Irel., has been appointed Consulting Surgeon for the St. Michael's Hospital, Kingstown.

CROWLEY, RALPH H., M.D. Lond., has been appointed Honorary Physician for the Bradford Royal Infirmary.

DE JERSEY, W. B., M.B. Cantab., L.R.C.P. Lond., M.R.C.S. Eng., has been appointed an Honorary Assistant Medical Officer for the Royal Surrey County Hospital, vice J. P. A. Gabb.

DOWDEN, J. W., M.B., F.R.C.S. Edin., has been appointed a Medical Officer in the University Surgical Wards, Royal Infirmary, Edinburgh.

ELDER, G., M.D., F.R.C.P. Edin., has been re-appointed a University Clinical Tutor, Royal Infirmary, Edinburgh.

FAIRWEATHER, W. E., L.R.C.P. Lond., M.R.C.S. Eng., has been appointed Resident Medical Officer for the Guest Hospital, Dudley.

FORDYCE, W., M.D. Edin., has been re-appointed a Medical Officer in the Gynæcological Wards, Royal Infirmary, Edinburgh.

FOWLER, J. S., M.B., M.R.C.P. Edin., L.R.C.P. Lond., M.R.C.S. Eng., has been appointed a Medical Officer in the Extra-mural Medical Wards, Royal Infirmary, Edinburgh.

GENGE, G. GILBERT, M.D., B.S. Lond., D.P.H. Camb., M.R.C.S. Eng., L.R.C.P. Lond., has been appointed Resident Medical Officer for the Croydon General Hospital.

GILL, J. S., L.R.C.P., L.R.C.S., Edin., L.F.P.S. Glasg., has been appointed a Medical Officer for the Clonavaddy District, Dungannon Union.

HEDLEY, A. S., M.B., B.S. Durh., has been appointed Medical Officer for the Workhouse and the Rothbury East Sanitary District of the Rothbury Union.

HICK, HENRY, L.R.C.P. Edin., M.R.C.S. Eng., has been appointed Medical Officer of Health for the New Romney Borough.

HONEYBURNE, R., M.D. Lond., M.R.C.S. Eng., has been appointed an Honorary Medical Officer for the Bradford Infirmary, vice J. Kerr.

HOWARTH, WILLIAM J., M.D., D.P.H. Vict., has been appointed Medical Officer of Health for the County Borough of Derby, vice Wm. Iliffe, deceased.

LACKIE, J. L., M.D., F.R.C.P. Edin., has been appointed a Medical Officer in the Gynæcological Wards, Royal Infirmary, Edinburgh.

MARSTON, F. E., L.R.C.P. Lond., M.R.C.S. Eng., has been appointed Medical Officer for the Welshpool Sanitary District of the Forden Union.

MILLER, G. V., M.B., C.M. Edin., has been appointed Eye, Ear, and Throat Specialist, North Riding Infirmary.

ORME, W. BRYCE, M.R.C.S. Eng., L.R.C.P. Lond., has been appointed Principal Medical Officer to the Government Hospital, Port Said, Egypt, vice F. R. S. Milton.

POGSON, BUCKLEY, M.D., has been appointed Visiting Medical Officer for the Protestant Dissenting Charity Schools, Birmingham.

PURVES, R. B., M.B., C.M. Edin., has been appointed a Medical Officer to the Extra-mural Surgical Wards, Royal Infirmary, Edinburgh.

RAINY, H., M.B., C.M., F.R.C.P. Edin., has been re-appointed a University Clinical Tutor, Royal Infirmary, Edinburgh.

ROBERTS, KILHAM, M.R.C.S. Eng., L.R.C.P. Lond., has been appointed Medical Officer of Health for the Ampthill Rural District Council.

SCOTT, J., M.B., D.P.H. Edin., has been appointed a Medical Officer to the Extra-mural Surgical Wards, Royal Infirmary, Edinburgh.

SKIRVING, A. A. S., M.B., F.R.C.S. Edin., L.R.C.P. Lond., M.R.C.S. Eng., has been appointed a Medical Officer to the Extra-mural Surgical Wards, Royal Infirmary, Edinburgh.

WALTER, R. H., M.B., C.M. Edin., has been appointed Medical Officer for the Sixth Sanitary District of the Yeovil Union.

WATERSTON, D., M.B., C.M. Edin., has been appointed a Medical Officer to the Extra-mural Surgical Wards, Royal Infirmary, Edinburgh.

WELSH, D. A., B.Sc., M.D. Edin., has been re-appointed a University Clinical Tutor, Royal Infirmary, Edinburgh.

WHITAKER, E. T., M.B., Ch.M., B.Sc., Edin., D.P.H. Camb., F.C.S., has been appointed Medical Officer of Health for the Ellesmere Urban and Rural District Councils, vice G. J. Glasson, resigned.

WOODHEAD, T. FIELDING, M.R.C.S., L.R.C.P., has been appointed Certifying Surgeon to Factories for the Meltham Urban District, vice T. A. Haigh, resigned.

YULE, G. P., M.B., M.S. Edin., has been appointed a Third Medical Assistant Officer for the Monsall Hospital.

Vacancies.

For further Information regarding each vacancy reference should be made to the advertisement (see Index).

BATH GENERAL OR ROYAL MINERAL WATER HOSPITAL.—Resident Medical Officer, unmarried. Salary £100 per annum with board and apartments in the Hospital.

BIRMINGHAM GENERAL DISPENSARY.—Resident Surgeon. Salary £150 per annum, with an allowance of £30 per annum for cab hire, and furnished rooms, fire, lights, and attendance.

BOROUGH OF RICHMOND (Surrey) and HESTON AND ISLEWORTH URBAN DISTRICT JOINT ISOLATION HOSPITAL COMMITTEE.—Resident Medical Officer at the new Isolation Hospital at Mogden, near Kneller Hall, Twickenham, unmarried. Salary £100 per annum, with furnished apartments in the Hospital, rations, and washing. Applications to the Clerk to the Joint Committee, 172, High-street, Hounslow, Middlesex.

CARDIFF INFIRMARY.—Assistant House Physician for six months. Salary at the rate of £50 per annum, with board, washing, and apartments.

COUNTY BOROUGH OF BURY.—Medical Officer of Health for the Borough and Urban Sanitary District of Bury. Salary £300 per annum, with actual disbursements. Applications to the Town Clerk, Corporation Offices, Bury.

DUNDEE ROYAL LUNATIC ASYLUM.—Two Medical Assistants. Salary £100 each, with board and lodging.

GRIMSBY AND DISTRICT HOSPITAL, Great Grimsby.—Resident House-Surgeon. Salary £80 per annum, board, lodging, and washing.

HASTINGS, ST. LEONARDS, AND EAST SUSSEX HOSPITAL, Hastings.—Assistant House Surgeon for six months. Gratuity of £10, with residence, board, and laundry.

HERTFORDSHIRE COUNTY ASYLUM at Hill-end, near St. Albans.—Medical Superintendent. Salary to commence at £500 a year. Certain arrangements as to accommodation until the asylum is completed will be made, and also as to furnished residence, &c., in addition to the salary. Applications to the Clerk to the Hertfordshire County Council, Hertford.

HOSPITAL FOR WOMEN, Soho-square, London.—House Physician for six months. Salary £30 for that period.

INFIRMARY OF THE CITY OF LONDON UNION.—Assistant Medical Officer at the Infirmary, Bow-road. Single or widower without children. Salary £150 per annum, with furnished apartments at the Infirmary, rations, and washing, subject to statutory deductions. Applications to the Clerk to the Guardians, 61, Bartholomew-close, E.C.

KENT AND CANTERBURY HOSPITAL, Canterbury.—Assistant House-Surgeon. Unmarried. Salary £50 a year, with board and lodging.

LEICESTER INFIRMARY.—House Surgeon. Salary £120 the first year, rising £10 per annum until the third year. Board, apartments, and washing provided.

LONDON TEMPERANCE HOSPITAL, Hampstead-road, N.W.—Resident Medical Officer for one year. Salary 100 guineas per annum, with board, lodging, and washing.

LONDON THROAT HOSPITAL, 204, Great Portland-street.—House Surgeon (non-resident) for six months. Salary at the rate of £25 per annum.

NORTH-WEST LONDON HOSPITAL, Kentish Town-road.—Resident Medical Officer and Assistant Resident Medical Officer for six months. Salary at the rate of £50 per annum attaches to the senior post.

ROTHERHAM HOSPITAL AND DISPENSARY.—Resident House Surgeon for three years. Salary £105 per annum, board and washing.

ROYAL FREE HOSPITAL, Gray's-inn-road, London.—House Surgeon for six months. Board, &c., provided.

ROYAL HOSPITAL FOR CHILDREN AND WOMEN, Waterloo-bridge-road, London.—Resident Medical Officer for twelve months. Salary £70 a year, with board, lodging, and washing.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City-road, London.—Resident Medical Officer for six months. Salary at the rate of £100 per annum, with furnished apartments, board, and washing.

ROYAL ORTHOPÆDIC HOSPITAL, 1297, Oxford-street, and 15, Hanover-square, London.—House Surgeon and Anæsthetist for six months, unmarried. Salary at the rate of £100 per annum with residence and partial board.

ROYAL PORTSMOUTH, PORTSEA, AND GOSPORT HOSPITAL, Portsmouth.—Assistant House Surgeon for six months. Board and residence and an honorarium of £15 15s.

ROYAL SOUTH LONDON DISPENSARY, St. George's-cross, S.E.—Dispenser. Salary 30s. per week and use of furnished apartments, with coals, gas, and water.

SCHOOL BOARD FOR LONDON.—Qualified Medical Practitioners to give Lectures on First Aid and Home Nursing to the pupils of the Evening Continuation Schools. Applications to the School Board for London, Victoria Embankment, W.C.

SOUTH LAMBETH, STOCKWELL, AND NORTH BRIXTON DISPENSARY, Wilkinson-street, Albert-square, Clapham-road, S.W.—Vacancy on the Visiting Medical Staff.

TORBAY HOSPITAL PROVIDENT DISPENSARY AND EYE INFIRMARY, Torquay.—House Surgeon. Salary £80 and board, lodging, washing, and attendance (wines, spirits, and beer excepted).

WEST HAM HOSPITAL, Stratford, E.—Junior House Surgeon for one year. Salary £75 per annum, with board, residence, &c.

Births, Marriages, and Deaths.

BIRTHS.

ATTLEE.—On Oct. 8th, at 58, Brook-street, London, W., the wife of John Attlee, M.D., of a daughter.

BOGLE.—On Oct. 4th, at New Ferry Park, near Birkenhead, the wife of James Linton Bogle, M.D., of a son.

BRIGHTMAN.—On Oct. 4th, at Aspley House, Broadstairs, the wife of Frank Brightman, M.R.C.S., L.R.C.P., of a daughter.

BROOKE.—On Oct. 3rd, at Buxton House, West Bridgford, Notts, the wife of Frederick Brooke, M.R.C.S. Eng., L.R.C.P. Lond., of a daughter.

CHEYNE.—On Oct. 12th, at 75, Harley-street, W., the wife of W. Watson Cheyne, F.R.C.S., F.R.S., of a son.

HOLCROFT.—On Oct. 7th, at Tramore, St. Leonards-on-Sea, the wife of Edgar Holcroft, M.A., M.B., of a daughter.

HUTCHINSON.—On Oct. 6th, at Loneside, Haslemere, the wife of Roger J. Hutchinson, M.R.C.S., L.R.C.P., of a daughter.

MARRIAGES.

BUIST—HUTCHISON.—At the cathedral church of St. Mary, Edinburgh, on Oct. 11th, 1898, by the Rev. Hugh J. Lawlor, D.D., Professor of Ecclesiastical History in the University of Dublin, John Brown Buist, M.D., to Helen, younger daughter of the late Henry Hutchison, 4, Grosvenor-street, Edinburgh.

CANDLER—WHISTLER.—On Oct. 4th, at Stockland Church, near Bridgwater, George Candler, B.A. Cantab., M.R.C.S., L.R.C.P., son of John Candler, M.R.C.S., of Harleston, Norfolk, to Edith Benedicta, daughter of the late Rev. R. F. Whistler, of Elton, Peterborough.

DEANESLY—MARSTON.—On Oct. 5th, at St. Peter's Collegiate Church, Wolverhampton, Edward Deanesly, M.D., B.Sc., F.R.C.S., to Ida Margaret, second daughter of John Marston, J.P., The Oaks, Wolverhampton.

MACMULLAN—THOMAS.—On Oct. 6th, at St. James's, Piccadilly, James Neil Macmullan, L.R.C.P. & S.E., L.F.P.S.G., of Drybrook, Glos., to Fanny Maude, eldest daughter of Richard Thomas, of Penarth.

STEDMAN—HETHERINGTON.—On Oct. 6th, at St. Peter's, Hull, Bernard Stedman, M.D. Lond., of Leighton Buzzard, to Clara Edith Hetherington.

TURNER—BARRY.—On Oct. 5th, at St. Stephen's, South Dulwich, John Sidney Turner, M.R.C.S., F.L.S., of Stanton, Anerley, S.E., to Emily Jane, only daughter of the late Dr. John Boyle Barry of Calcutta.

DEATHS.

BLACKFORD.—On Oct. 1st, at Cannock, John Cromwell Blackford, M.R.C.S., L.S.A., aged 76.

GOLDTHORP.—On Oct. 8th, at her residence, Howard House, Upper Norwood, in her 86th year, Lætitia Goldthorp, eldest daughter of the late William Browne, Esq., of Stanton's Wharf, Bermondsey, some time widow of the late Samuel Radcliffe, Esq., M.D., of Leeds, and afterwards widow of the late Robert Goldthorp, Esq., of Leeds and Norwood.

JACKMAN.—On Oct. 11th, at 11, Stoke Newington-road, N., Sarah, wife of T. S. H. Jackman, L.R.C.P. Lond., M.R.C.S. Eng.

NEWCOMBE.—On Oct. 2nd, at Woodhall Spa, Lincoln, Henry Newcombe, F.R.C.S.E., of Dalrymple-crescent, Edinburgh.

REW.—On Oct. 6th, at Western-road, Bexhill, James Rew, M.R.C.S., L.S.A.

WILKINS.—On Oct. 5th, at Brixton-road, Gilbert Hamilton Wilkins, M.D., aged 48.

N.B.—A fee of 5s. is charged for the insertion of Notice of Births, Marriages, and Deaths.

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (17th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M., Ophthalmic 1.15 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), St. Mark's (9.30 A.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), Westminster (2 P.M.), London Throat Hospital (2 P.M.).

TUESDAY (18th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), Guy's (1.30 P.M.), St. Thomas's (3.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.), London Throat Hospital (2 P.M. and 6 P.M.), Royal Ear Hospital (3 P.M.).

WEDNESDAY (19th).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. Mary's (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.), Metropolitan (2.30 P.M.), London Throat Hospital (2 P.M.).

THURSDAY (20th).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (Gynæcological, 2.30 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.).

FRIDAY (21st).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M., Ophthalmic 10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat Hospital (2 P.M. and 6 P.M.).

SATURDAY (22nd).—Royal Free (9 A.M. and 2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), University College (9.15 A.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), St. Mary's (10 P.M.), Cancer (2 P.M.), London Throat Hospital (2 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

TUESDAY (18th).—PATHOLOGICAL SOCIETY OF LONDON.—8.30 P.M. Dr. F. W. Andrewes: Follicular Enteritis due to Streptococci and Bacillus Enteritidis Sporogenes.—Mr. S. G. Shattock: Acromegalic Skull.—Dr. W. S. L. Barlow: Carcinoma (?) arising in an Accessory Thyroid Gland.—Mr. H. B. Robinson: Button Cyst of the Breast.—Dr. H. Walsham: On the occurrence of Bony and Cartilaginous Nodules in the Tonsil.—Mr. P. de Santi: Multiple Primary Sarcomata of the Scalp of nineteen years' duration, Removal, Recurrence in the Lungs.

CHELSEA CLINICAL SOCIETY (Holy Trinity Parish Hall, Pavilion-road, S.W.).—8.30 P.M. Dr. J. F. Palmer (President): On certain Undefined Factors in the Spread of Disease (Opening Address).

WEDNESDAY (19th).—ROYAL MICROSCOPICAL SOCIETY (20, Hanover-square, W.).—8 P.M. Papers:—Mr. J. N. Coombe: The Reproduction of Diatoms.—Mr. F. W. Millett: Report on the Recent Foraminifera of the Malay Archipelago (Part III.).

NORTH-WEST LONDON CLINICAL SOCIETY (North-West London Hospital).—8.30 P.M. Monthly Demonstration of Clinical Cases.

THURSDAY (20th).—HARVEIAN SOCIETY OF LONDON (Stafford Rooms, Edgware-road).—8.30 P.M. Clinical Meeting. The following Cases will be shown: Dr. A. P. Luff: A Case of Great Enlargement of the Spleen.—Mr. S. Collier: (1) Congenital Dislocation of Patella; (2) A Case for Diagnosis.—Mr. J. Clarke: Cases of Spinal Caries.—Dr. J. Taylor: A Case of Paralysis.—Dr. L. Guthrie: Left Hemiplegia associated with Atrophy of Right Optic Nerve.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.—8 P.M. Cases and Card Specimens. 8.30 P.M. Papers:—Mr. J. F. Bullar and Mr. C. D. Marshall: Tumours of the Optic Nerve.—Capt. Herbert: The Tension of the Eye in Irido-Cyclitis.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

MONDAY (17th).—LONDON POST-GRADUATE COURSE.—London Throat Hospital, Gt. Portland-st., W., 8 P.M., Dr. H. Tilley: Demonstration of Selected Cases (Ear, Throat, Nose).

THE SANITARY INSTITUTE, (Parkes Museum, Margaret-street, W.).—8 P.M. Sir Douglas Galton (Chairman of Council): Introductory Address to Twenty-sixth Course of Lectures and Demonstrations in Sanitary Science for Sanitary Officers and Students.

TUESDAY (18th).—ROYAL COLLEGE OF PHYSICIANS.—5 P.M. Sir Dyce Duckworth: Harveian Oration.

WEST-END HOSPITAL FOR DISEASES OF THE NERVOUS SYSTEM (73, Welbeck-street).—4 P.M. Dr. H. Campbell: On the Motor Tract, with Cases of the Different Types of Paralysis.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Queen-square, W.C.).—3.30 P.M. Dr. Buzzard: Peripheral Neuritis.

LONDON POST-GRADUATE COURSE.—Hospital for Skin Diseases, Blackfriars, 4.30 P.M., Dr. P. Abraham: Pityriasis Rosea and Tinea Versicolor.—Bethlem Hospital, 2 P.M., Dr. Craig: Melancholia and Hypochondriasis.

WEDNESDAY (19th).—LONDON POST-GRADUATE COSURE.—Parkes Museum, Margaret-st., W., 4.30 P.M., Prof. A. Wynter Blyth: Construction of Dwelling Houses.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST (Brompton).—4 P.M. Dr. Mitchell Bruce: Aneurysm of the Aorta.

THURSDAY (20th). — LONDON POST-GRADUATE COURSE. — Central London Sick Asylum Cleveland-st., W., 5.30 P.M., Mr. F. Taylor: Clinical Lecture.
THE HOSPITAL FOR SICK CHILDREN (Gt. Ormond-street, W.C.).—4 P.M. Dr. Batten: Demonstration of Selected Cases.
CHARING-CROSS HOSPITAL.—4 P.M. Mr. Waterhouse: Demonstration of Surgical Cases. (Post-Graduate Class.)
LONDON TEMPERANCE HOSPITAL.—2 P.M. Dr. S. Fenwick: Clinical Demonstration to Senior Students.
FRIDAY (21st).—LONDON POST-GRADUATE COURSE.—King's College, 3 to 5 P.M., Prof. Crookshank: Examination of Air, Soil, and Water.
WEST LONDON POST-GRADUATE COURSE (West London Hospital, W.).—5 P.M. Dr. S. Taylor: Surface Anatomy of the Lower Extremity.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Oct. 13th, 1898.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Rainfall.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Wet Bulb.	Dry Bulb.	Remarks at 8.30 A.M.
Oct. 7	29·99	S.E.	...	68	61	56	55	57	Overcast
,, 8	29·91	S.E.	...	80	60	53	53	56	Overcast
,, 9	30·05	N.E.	0·20	93	62	50	50	55	Hazy
,, 10	30·09	N.W.	...	75	58	50	50	51	Overcast
,, 11	30·00	N.	...	63	56	45	47	48	Foggy
,, 12	29·96	W.	...	91	61	45	46	48	Bright
,, 13	29·88	N.E.	...	65	54	45	46	47	Foggy

Notes, Short Comments, and Answers to Correspondents.

EDITORIAL NOTICES.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

***Lectures, original articles, and reports should be written on one side of the paper only*, AND, WHEN ACCOMPANIED BY BLOCKS, IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.**

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET should be addressed "To the Manager."

We cannot undertake to return MSS. not used.

NICOTIANA.

SINCE James I. began the attack with his famous "Counterblast" there has been no lack of fulmination against users of the plant which Sir Walter Raleigh describes as "ye herb called by ye natives yppowoc," and yet not only do smokers still abound but they actually seem to be becoming more and more numerous every day. Anti-tobacconists are doubtless for the most part actuated by praiseworthy motives, although in some cases they may be seeking to "compound for sins they have a mind to," as Butler has it, but it is nevertheless a fact that moderate indulgence in sound tobacco has never been shown to be injurious to grown people. But if the nicotian citadel has proved itself impregnable, there are sundry outworks, so to speak, where a measure of success, if not absolute victory, has been claimed by the stormers in spite of strenuous denials on the part of the besieged. According to Dr. Etienne of Nancy the mortality prevailing among the children of women who are employed in manufacturing tobacco is more than double that of the infantile population in general, amounting to as much as 100 per cent. when the mothers resume work immediately after their confinement and sinking to about normal when they refrain from re-entering the factory until their infants have been duly weaned. The poisonous character of a woman's milk while she is in the habit of manipulating tobacco is thus, in Dr. Etienne's opinion, conclusively proved, but in the opinion of M. Darquier, who thirty years ago founded a *crèche* in a tobacco factory at Toulouse, the conclusion is by no means justified. Having successfully administered his *crèche* ever since its foundation the nicotian advocate writes to the *Revue Scientifique* in order to protest against the Nancy practitioner's assumptions. According to M. Darquier, "tobacco exercises no injurious effect whatever on the milk of the workwomen who are engaged in manufacturing it," and he is able to adduce figures which seem to sustain his argument. Often since the *crèche* was started there have been as many as 1800 infants accommodated in a single year, but instead of the excessive mortality given by Dr. Etienne the average death-rate for the whole period is only 17·94 per cent. It is true that some of the children were aged eighteen months and upwards on admission, but when these are eliminated from the calculation the results are still favourable to tobacco, as will be seen by the following statement: death-rate among infants nursed in the *crèche* by their mothers, 22·10 per cent.; death-rate among infants brought up in the *crèche* by hand, 41 per cent. Apparently M. Darquier has most successfully defended his outwork, but no doubt his antagonist will resume the assault.

A FRENCH VIEW OF THE VACCINATION ACT.

UNDER the heading of "La Vaccination en Angleterre" the *Revue Scientifique* of Oct. 8th has an article in which the following remarks occur:—

> "We all know that according to a recent law which has been passed owing to the efforts of the antivaccinationists it is from henceforth legal for anyone not only to refrain from having himself vaccinated, but also to refrain from having his children vaccinated. Whoever can prove before a magistrate that he has a "conscientious objection" as to vaccinating himself or his children can escape vaccination. We do not quite see how the magistrate is to weigh the value of the conscientious objections but that does not matter. ..... What the anti-vaccinationists want to do is to perform an experiment which no medical man would have dared to suggest and the expenses of which they will have to pay. ..... So much the worse for the ignorant, for those who do not wish to learn, ... their experiment will only fortify the partisans of vaccination in their opinion."

THE HISTORY OF PULSE COUNTING.

IN the course of an address on the nerves of the heart published in the *Deutsche Medicinische Wochenschrift* of August 4th Professor von Leyden mentioned, on the authority of Professor Pagel, that John Floyer (1649–1734) is spoken of as the first who employed a watch in practice for determining the pulse-rate, although William Harvey (1578–1657) had already used a watch for a similar purpose. In the issue of that journal of Oct. 6th Professor C. Binz draws attention to an earlier originator of the same idea—namely, the German cardinal Nikolaus Krebs, of Cues (pronounced Cuhs) on the Moselle, well known in the history of the fifteenth century as Cusa or Cusanus. Of course, timekeepers suitable for pulse counting did not exist in Cusa's day, as the earliest form of the watch was the "Nuremberg egg" invented by Peter Henlein, who died in 1542. The cardinal lived from 1401 to 1464. In his dialogue "De Staticis Experimentis," which he wrote in 1450, he recommended the use of the balance in scientific experimentation, and Professor Binz gives a lengthy quotation taken from a copy of the treatise bound up with an edition of Vitruvius "De Architectura," published at Strassburg in 1543. The following is an extract, immediately after which comes a suggestion that the respirations in health and in illness might be compared in a similar manner.

> "Nonne putas, si aquam ex stricto foramine clepsydrae in pelvim permitteres, quousque sani adolescentis pulsum centies sentires et similiter ageres in adolescenti infirmo, inter aquas illas ponderis cadere differentias? Ex pondere igitur aquarum ad diversitatem pulsuum in juvene, sene, sano et infirmo perveniretur, et ita ad morbi veriorem notitiam, cum aliud pondus in una infirmitate, aliud in alia necessario eveniret. Unde perfectius fieret judicium ex experimentali pulsuum tali differentia et pondere urinae, quam tactu venae et colore urinae tantum."

Floyer practised at Lichfield and was knighted in or before 1686. The account of him in the "National Dictionary of Biography" is by Dr. J. F. Payne, who says: "Floyer was the first to make regular observations upon the rate of the pulse, counting the number of beats in a minute by the watch. Before his time, though other points connected with the pulse had been carefully studied, this had been neglected. The pulse-watch was merely a watch constructed to go for exactly one minute. ..... Floyer did good service also by his advocacy of cold bathing in a work published under different titles in several editions. ..... The work on Asthma is also very noteworthy, not only as containing excellent clinical observations, but as giving the first account, derived from dissection, of the change in the lungs now called emphysema."

THE AMERICAN ARMY IN CUBA.

AN editorial article in the *Philadelphia Polyclinic* of Sept. 10th says: "We are among those who trust that the request of Surgeon-General Sternberg for an investigation will be granted and that the investigation will be thorough and judicial. We have never doubted, and we do not doubt now, that its result will be creditable to the medical corps of the United States Army, from the Surgeon-General to the youngest and most inexperienced of the surgeons appointed from civil life. Accumulating evidence seems to show that failure upon the part of camp officers to heed the warnings and obey the suggestions of the regimental surgeons is responsible for the epidemics of typhoid fever, and that the outbreak of yellow fever was due to General Shafter's brutal and ignorant course, seemingly prompted entirely by a spirit of childish opposition, in disregarding the warnings and the advice of Dr. Senn, Dr. Wood, and his own chief medical officer."

"WHAT IS A *BONÂ-FIDE* STUDENT?"

To the Editors of THE LANCET.

SIRS,—Your reply to my letter under the above heading in THE LANCET of Oct. 8th, if it correctly interprets the meaning of the General Medical Council, practically closes the door of the profession to my employé and to all like him who, having no means, are deprived of the power to make use of the knowledge they have gained to earn sufficient money to see them through their final. I do not think I am exaggerating when I say that hundreds of medical students complete their curriculum and do not feel themselves equal to pass the final, and when they do face it are often referred. What are these men to do if they have no money? They are no longer *bonâ-fide* students if your opinion is correct, and consequently not eligible for pupil assistantships. If medical men employ them, even in that capacity in which they have proved themselves to be efficient, the former are liable to be censured by the General Medical Council, though it would appear that *bonâ-fide* students of less experience and unproved efficiency could be legitimately so employed. If I am not trespassing too much on your space I shall be glad if you will give me your opinion as to whether any further employment in medical practice beyond bookkeeping and dispensing can be found for men in the position of my employé. I am, Sirs, yours faithfully,

Oct. 10th, 1898. L.R.C.P.

DURHAM UNIVERSITY AND THE M.D. FOR PRACTITIONERS.

To the Editors of THE LANCET.

SIRS,—As I have just had the good fortune to obtain the above degree, and as Durham is the *only* university in England which kindly and liberally widens her portals so as to reward the general practitioner after he has attained the age of forty years, I write with your kind permission to shed a little light upon the matter for the benefit of others who wish to graduate, as there are some points which do not seem to be well understood. First, *either* the Latin or the Professional may be taken separately or first. To one who has forgotten the former I would say, take it up first and *alone*, so as to be free for the professional subjects afterwards. The time allowed for the latter will of course depend upon the abilities and opportunities of the candidate, say three or four hours' reading daily for six or twelve months. A list of books is to be obtained in the University Calendar, which will be forwarded by the kind and courteous secretary, Dr. Howden. Get the latest editions. Be sure and get up the urine and urinary microscopic, and pathological and histological work thoroughly, also the uses and names of all surgical instruments and appliances, and if at all shaky in clinical work do not venture to present yourself before doing a certain amount of ward-work. And last, but not least, do not think that because you *are* forty years of age and practise in London *anything* will do for Durham, or you will regret it.

I am, Sirs, yours faithfully,

Oct. 3rd, 1898. M.D.

SAVE US FROM OUR (CLERICAL) FRIENDS.

MR. CLAGUE, of Castletown, Isle of Man, is to be sincerely sympathised with on account of the, doubtless kindly meant, advertisement given to him by Canon Christopher, of Oxford, in the *Record*. The worthy canon's article is headed "Sleeplessness: A Prescription." He explains that after a number of eminent London medical men had failed to relieve him "Dr. Clague, of Castletown, Isle of Man, took me in hand. He prescribed for me a sedative mixture which not only, under God's blessing, cured me, but also keeps me cured. I have never had a really sleepless night for eleven years. ..... Dr. Clague's 'Sedative Mixture' never interferes with any regular habit and I have never had a headache or any other ache for eleven years. I do not know what ingredients are combined in the mixture, but if any one of your readers wishes to know, let him send a P.O. for 2s. to Mr. R. K. Kermode, chemist, Malew-street, Castletown, Isle of Man, and ask him to send a small bottle of the 'Sedative Mixture' which he has sent me for about eleven years and the prescription. No one must expect an answer if he merely writes for the prescription. . . . If any sleepless sufferer can afford to take a bed for a week at Fort Island Hotel, near Castletown, Isle of Man, he will enjoy the sea air, and can consult Dr. Clague, whose fees are very moderate. . . . Dr. Clague's ability is well known to his medical brethren in Douglas, who occasionally call him in for consultation in specially difficult cases." Really, as Canon Christopher says he is seventy-eight years of age, it might have been supposed that he was old enough to know better than to write such a letter. A postal order sent as directed brought an 8 oz. mixture labelled "The Sedative Mixture as recommended by Canon Christopher. . . . N.B.—The Prescription is not supplied."

"THE MEDICAL DIRECTORY."

To the Editors of THE LANCET.

SIRS,—The Medical Directory is such a useful and generally admirable publication that any question which tends to eliminate blemishes will, I am sure, be welcomed by the editors. The list of hospitals and schools of medicine in London is apparently arranged alphabetically, only on a very mixed system. It commences thus: Bartholomew's Hospital (St.), then follow Charing-cross, Guy's, King's, London, Middlesex, and then come St. George's, St. Mary's, and St. Thomas's. Now, if all the hospitals called after a saint are to be inserted alphabetically under **S**, why should the Apostle Bartholomew be ignored? If the alphabetical arrangement is to be taken from the names of the saints, then St. George's should precede Guy's and St. Mary's precede Middlesex. The present arrangement is a hopeless mixture.

I am, Sirs, yours faithfully,

Oct. 10th, 1898. C. P. H.

To the Editors of THE LANCET.

SIRS,—There is something to be said for and against the present arrangement of the Medical Directory, but it would be quite easy with the addition of a few extra pages to increase its usefulness. All that is required is an alphabetical list of names at the beginning of the book and an indication of the section where the full names and qualifications, &c., can be found. I am, Sirs, yours faithfully,

Oct. 3rd, 1898. OPS.

POWDER PUFFING.

WE have received the wrapper of a packet of baking powder upon which is printed a testimonial signed "W. Tibbles, M.R.C.S., L.R.C.P., L.S.A." Mr. Tibbles would do well if he took steps to have his name removed from such undesirable publicity.

ADVERTISING.

A CORRESPONDENT has forwarded to us a card, of which we reproduce a portion:—

Notice of Removal.

Dr. Burslem Rotheroe

has removed from

.....

to

.....

1st Sept., 1898. .....

The card was forwarded in an envelope addressed to (we omit the name) "Col. ——, Esqre." It is not usual to put "Esq." after a name bearing a preceding title. Moreover, the envelope was unstamped and surcharged. Our correspondent informs us that he has never been a patient of the medical man in question. Mr. Rotheroe must know that it is not professional for any medical man to send "change of address" cards to others than his own patients.

Mr. R. Eustace will find the names of the examiners in the current Calendar of the College under the heading of Officers, &c. It is very unlikely that the qualified man stands any better chance than the unqualified, or that the man who has been rejected stands any better chance than the virgin candidate.

A Registered Medical Student has omitted to enclose his name and address.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

During the week marked copies of the following newspapers have been received: *Kingston News, Bradford Observer, Birmingham Gazette, Scotsman, West Middlesex Advertiser, Manchester Guardian, Western Morning News, East Anglian Times, Nottingham Guardian, Woolwich Herald, Warwick Times, Leicester Post, Westminster Gazette, Times of India, Pioneer Mail, Walsall Advertiser, Glasgow Herald, Sheffield Telegraph, Watford Observer, Galloway Advertiser, Sussex Daily News, Dundee Advertiser, Brighton Gazette, Builder, Liverpool Daily Post, Citizen, Architect, Leeds Mercury, Lincoln Chronicle, City Press, Yorkshire Post, Grimsby Daily Telegraph, Bristol Mercury, Radnorshire Standard, Household Words, Western Mail, Sanitary Record, Local Government Chronicle, Mining Journal, Hertfordshire Mercury, Reading Mercury, Daylight, Chelsea Mail, Local Government Journal, Surrey Advertiser, Eastern Daily Press, Weekly Free Press and Aberdeen Herald, The Evening Reporter, Pontypridd Chronicle, Arbroath Herald, Redworth Observer, Dereham and Watton Standard, Isle of Man Examiner, Whitehaven Advertiser, Bristol Times and Mirror, Barry Herald, Chard News, Fish Trade Gazette, Paddington Gazette, Daily Chronicle, &c.,*

Communications, Letters, &c., have been received from—

A.—Mr. C. E. Ady, Lond.; Messrs. Arnold and Sons, Lond.; Dr. Adam, West Malling; Apothecaries, Society of, Lond., Secretary of; Mr. M. F. Armstrong, Horton Kirby; Australian Wine Importers, Lond.; Mons. J. Astier, Paris; Messrs. S. Austin and Sons, Hertford; Apollinaris Co., Lond.

B.—Mr. C. E. Bell, Exeter; T. B. Browne, Ltd., Lond.; Messrs. W. H. Bailey and Son, Lond.; Messrs. Bates, Hendy, and Co., Lond.; Mr. A. Bostock, Ashbyde-la-Zouch; Messrs. J. Bell and Co., Lond.; Dr. F. Bagshawe, St. Leonards-on-Sea; Messrs. Barker Bros., Calcutta; Dr. B. Bramwell, Edinburgh; Messrs. S. H. Benson, Lond.; Messrs. Bedford and Co., Lond.; Birmingham General Hospital, House Governor of; Messrs. Burroughs, Wellcome, and Co., Lond.

C.—Dr. A. E. Cooper, Lond.; Mrs. Carleton, Rushleigh, Brighton; Dr. S. D. Clippingdale, Lond.; Mrs. Annie M. Campbell, Lond.; Messrs. W. and R. Chambers, Edinburgh; Messrs. S. B. Clark and Son, Lond.; County Borough of Bury, Clerk of; Mrs. Stephen Coleridge; Messrs. J. and A. Churchill, Lond.; Messrs. Cassell and Co., Lond.; Messrs. Crossley, Moir, and Co., Lond.; Cardiff Infirmary, Secretary of; Mr. T. Cooke, Lond.; Mr. A. R. Cunningham, St. Andrews.

D.—Sir Dyce Duckworth, Lond.; Dr. J. T. H. Davies, Leicester; Dr. F. Dale, Nottingham; Mr. A. Doran, Lond.; Dr. A. Davies, Lond.; Dr. S.; Dover Hospital, Secretary of; Dr. J. H. Dauber, Lond.

E.—Mr. J. Bentall Endean, Cockington; Dr. D. W. Eshelby, Frocester; Dr. A. Symons Eccles, Lond.

F.—Dr. N. H. Forbes, Tunbridge Wells; Surgeon-Captain Fischer, Jhansi, India; Messrs. Fieber Bros., Lond.

G.—Mr. W. Gorn-Old, Lond.; Mr. J. L. Greene, Salisbury; Glasgow Royal Infirmary, Superintendent of; Grimsby News Co., Manager of; Messrs. W. Green and Sons, Edinburgh.

H.—Dr. V. Harley, Lond.; Mr. R. Harrison, Lond.; Mr. J. Heywood, Manchester; Mr. J. W. Hall, Lisbellaw, Ireland; Dr. R. Heusner, Belize, British Honduras; H. G.; Hastings, &c., Hospital, Secretary of.

I.—Messrs. Isenthal, Potzler, and Co., Lond.; Incorporated Society of Medical Officers of Health.

J.—Mr. T. Jackson, Colwyn Bay; Mr. C. Jarman, Lond.; J. W. G.; Jeyes' Sanitary Compounds Co., Lond.; Mr. J. T. Jones, Lond.; Jenner Institute for Calf Lymph, Lond., Secretary of; Dr. J. Jamieson, Edinburgh.

K.—Mr. G. C. Karop, Lond. Mr.; B. Kühn, Lond.; Kent and Canterbury Hospital, Secretary of.

L.—Dr. J. Lowe, Lond.; Mr. C. M. Leakey, Caistor; Dr. J. F. Little, Lond.; Messrs. L. Lumley and Co., Lond.; Life Saving Society, Birmingham, Hon. Secretary of; Mr. A. Ledger, Lee; Dr. E. H. Linnell, Norwich, U.S.A.; Mr. R. Lake, Lond.

M.—Mr. W. C. M'Donnell, Lond.; Dr. Martin Mendelssohn, Berlin; Dr. J. L. Morton, Lond.; Dr. J. Metcalfe, Bradford; Dr. A. D. Macpherson, Leith; Milk Preparations Co., Brentwood; Mr. J. Milne, Lond.; Dr. S. Messulam, Shrewsbury; Maltine Manufacturing Co., Lond.; Dr. J. L. I. Moore, Market Harborough; Dr. S. Mullick, Lond.; Mr. J. R. McKinlay, Lond.; Mrs. Morgan, Lond.; Messrs. Maythorn and Son, Biggleswade; Medical Society, University College, Lond., Hon. Secretary of.

N.—Dr. A. G. Naylor, Chesterfield; Messrs. Neyroud and Son, Lond.

O.—Dr. L. H. Ormsby, Dublin; Dr. H. O'Neill, Belfast; Messrs. P. de Otaduy and Co., Lond.

P.—Dr. J. F. Payne, Lond.; Mr. F. G. Potter, Norwich; Dr. C. Porter, Stockport; Mr. W. Poppelreuter, Manchester; Mr. Y. J. Pentland, Edinburgh.

R.—Dr. D. Ross, Lond.; R. M., Nottingham; Royal Halifax Infirmary, Secretary of; Dr. A. Rutherford, Kettering; Rotherham Hospital, Staff Surgeon of; Mr. A. Roche, Dublin; Royal Portsmouth Hospital, Secretary of; Messrs. Robertson and Scott, Edinburgh; Royal Mineral Water Hospital, Bath; Mr. C. Riley, Manchester; Registered Nurses' Society (The), Lond., Secretary of.

S.—Mr. R. Stoney, Lond.; Dr. T. D. Savill, Lond.; Dr. H. Snow, Lond.; Dr. J. F. Sutherland, Edinburgh; Mr. J. Startin, Lond.; Mr. R. Saunderson, South Croydon; Messrs. Street and Co., Lond.; Mr. T. Stopker, Ipswich; Mr. H. Schechter, Odessa, Russia; Sanitas Co., Lond.

T.—Dr. J. C. Thresh, Chelmsford; Dr. J. Taylor, Bissay; Mr. H. J. Thornton, Lond.; Mr. Tallerman, Lond.; Torbay Hospital, Secretary of.

V.—Dr. J. J. Vernon, Stockport.

W.—Mr. D. Whittles, Birmingham; Professor W. Whitla, Belfast; Dr. D. Walsh, Lond.; Mr. W. Wilson, Lewes; West Riding Asylum, Wadsley, Medical Superintendent of; Mr. F. H. Wheeler, Lond.; Mr. A. F. Wilson, Lond.; Messrs. Wright, Dain, Peyton, and Co., Birmingham; West Ham Hospital, Stratford, Secretary of; Welshman Printing Co., Carmarthen; Messrs. R. F. White and Son, Lond.

Y.—Dr. J. M. Young, Hamilton.

Letters, each with enclosure, are also acknowledged from—

A.—Mr. A. E. Abrahams, Lond.; Atkins, Newcastle-on-Tyne; Alpha, Wimbledon; Messrs. Allen and Hanburys, Lond.; A. V. W.; Ayr County Hospital, Secretary of; A. E. P.; A. F.; A. M. St. J. W.; A., Wisbech.

B.—Mr. L. Browne, Lond.; Messrs. T. Brackstone and Co., Colwyn Bay; Dr. H. C. Bhuttacharya, Nepal, India; Beacon, Lond.; Mr. W. Buchanan, Chatham; B., Lond.; Messrs. Benson and Co., Lond.; Messrs. Burgoyne, Burbidges, and Co., Lond.; Mr. H. R. H. Bigg, Lond.

C.—Dr. W. S. Carroll, Hafod; Mr. W. Cook, Alcester; C. E. P.; Mr. A. Clark, Lond.; Dr. G. Caley, Lond.; C. S. J.; Mr. E. Crawshow, Liverpool; C. B.; Codrington, Portsmouth; Mr. H. Connop, Brailsford; Mr. E. Owen Cox, Cleobury Mortimer; C. C. S.; Mr. J. M. Carvell, Lond.; C. J., Cortland Wagon Co., Lond.; Mr. D. J. Carroll, Ballynattin; College of Preceptors, Lond., Secretary of.

D.—Mr. A. K. Dresser, Padstow; Messrs. Davies and Rhys, Aberdare; D. M. T.; D. M. J., Aldershot; Doctor, Lond.; Dorset-square (12), Lond.

E.—Dr. C. C. Easterbrook, Edinburgh; F. J. T.

F.—Mr. E. Fryer, Loddington; Mr. J. FitzGerald, Queenstown; F 2, Manchester; Dr. F. Friel, Draycott.

G.—Mr. H. J. Glaisher, Lond.; Mr. J. J. Griffiths, Lond.; Messrs. Gilyard Bros., Bradford; G. N. R.; G. F. T.; G. J. M.; Mr. D. R. Gooding, Southwold.

H.—Mr. J. W. Hopkins, Snettisham; H. I. R.; H. R.; H. A. D., Burnley; H. B. L.

J.—Mr. T. Johnston, Ilfracombe; J. H. M.; Messrs. W. and A. K. Johnston, Edinburgh; Dr. A. W. James, Lond.; J. A. T.; J. A. G.; Mr. R. A. Jackson, Kirby Moorside; J. H. R.; J. H. W.; Dr. L. Jones, Florence.

K.—Dr. C. R. Killick, Williton; Kingsley, Southport; Mr. W. Kirkly, Glyncorrwg; Dr. J. M. M. Kerr, Glasgow; Messrs. Kilner Bros., Lond.

L.—Mr. C. F. Le Sage, Lond.; Mr. H. B. Long, Lond.; Mr. E. Leyba, Penn Court; Mr. J. L. Leckie, Pontypridd; Messrs. Lee and Martin, Birmingham; London College of Pharmacy, Secretary of; Locum Tenens, Normanton; L. F. C.

M.—Dr. J. S. McKendrick, Glasgow; Mountjoy Brewery, Dublin; Mr. E. Marsh-Burnham, Lond.; Mr. C. F. Myers-Ward, Sheffield; Moat House, Tamworth, Proprietor of; M. M. L.; M.D., London; Miss Mew, Hove; *Medical Magazine*, Lond., Manager of; Medico, Devonport; M. A. C.

N.—Dr. T. D. Nicholson, Bolton-on-Dearne.

O.—Dr. W. R. Orr, Newington, Kent; Mr. O. Owen, Scunthorpe.

P.—Mr. H. Pinch, Lee, Devon; Mr. B. Price, Liverpool.

R.—Mr. A. Robson, South Shields; Dr. R. R. Rentoul, Liverpool; Messrs. Robertson and Wallace, Edinburgh; Mr. H. M. Riley, Leicester.

S.—Mr. B. C. Smith, Lond.; South Hornsey Urban District Council, Clerk of; Mr. Stenhouse, Glasgow; Southport Eye and Ear Hospital, Secretary of; Rev. E. Spencer, Tavistock; Dr. G. Stanton, Simcoe, Canada; S. C.; Surgeon, Lond.; Stockwell Parkroad (79), Lond.; Surgeon, Manchester; St. Mary's Children's Hospital, Secretary of; Dr. S.; Society of Trained Masseuses, Lond., Hon. Secretary of; Miss R. Sproat, Bushey; Messrs. Sykes, Josephine, and Co., Lond.; Mr. L. Sandell, Lingfield; Dr. Sutherland, Bideford; S.W.

T.—Mr. E. J. Tynan, Coolgardie, Western Australia; Taunton and Somerset Hospital, Accountant of; T. H.; T. N. H.; Dr. P. D. Turner, Shawford; Temperance Male and Female Nurses' Coöperation, Lond., Secretary of; Mr. J. Taylor, Lond.; T., Diss; T. M.; T. T.; Dr. J. H. Thorpe, Manchester; T. M.

U.—Mr. J. Utting, Liverpool; University College, Bristol, Secretary of.

V.—Mr. W. P. Van Wyk, Lond.

W.—Mr. E. Warburton, Treherbert; Mr. S. Warren, Ilfracombe; Mr. G. B. White, Lond.; Dr. R. T. Williamson, Manchester; W. D.; Messrs. Widenmann, Broicher, and Co., Lond.; Mrs. J. Wynard, Lond.; W. B. L.; W. H. P.; Mr. W. H. Warwick, Darlington; Messrs. H. Whewell and Co., Bolton; Messrs. R. R. Whitehead and Bros., Lond.

Y.—Dr. W. M. Yeoman, Stokesley; Dr. R. T. Young, Lond.

EVERY FRIDAY.

THE LANCET.

PRICE SEVENPENCE.

SUBSCRIPTION, POST FREE.

FOR THE UNITED KINGDOM.		TO THE COLONIES AND ABROAD.	
One Year	£1 12 6	One year	£1 14 8
Six Months	0 16 3	Six Months	0 17 4
Three Months	0 8 2	Three Months	0 8 8

Subscriptions (which may commence at any time) are payable in advance.

An original and novel feature of "THE LANCET General Advertiser" is a Special Index to Advertisements on pages 2 and 4, which not only affords a ready means of finding any notice, but is in itself an *additional* advertisement.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance.

Answers are now received at this Office, by special arrangement, to Advertisements appearing in THE LANCET.

The Manager cannot hold himself responsible for the return of testimonials, &c., sent to the Office in reply to Advertisements; copies only should be forwarded.

Cheques and Post Office Orders (crossed "London and Westminster Bank, Westminster Branch") should be made payable to the Manager, Mr. CHARLES GOOD, THE LANCET Office, 423, Strand, London, to whom all letters relating to Advertisements or Subscriptions should be addressed.

THE LANCET can be obtained at all Messrs. W. H. Smith and Son's and other Railway Bookstalls throughout the United Kingdom. Advertisements are also received by them and all other Advertising Agents.

ADVERTISING.

Books and Publications ...	Seven Lines and under	£0 5 0
Official and General Announcements	Ditto	0 5 0
Trade and Miscellaneous Advertisements	Ditto	0 4 6
	Every additional Line	0 0 6

Quarter Page, £1 10s. Half a Page, £2 15s. An Entire Page, £5 5s.

Terms for Position Pages and Serial Insertions on application.

Agent for the Advertisement Department in France—J. ASTIER, 8, Rue Traversière, Asnières, Paris.